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Earley et al.

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(54) **MOBILE APPLICATIONS AND WAGERING GAME MACHINES**

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(51) **Int. Cl.**
G07F 17/32 (2006.01)

(52) **U.S. Cl.**
CPC ***G07F 17/3244*** (2013.01); ***G07F 17/3218*** (2013.01); ***G07F 17/3225*** (2013.01); ***G07F 17/3267*** (2013.01)

(58) **Field of Classification Search**
CPC G07F 17/3218; G07F 17/3225; G07F 17/3244; G07F 17/3267
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,846,238	B2	1/2005	Wells
7,699,703	B2	4/2010	Muir et al.
8,671,019	B1	3/2014	Barclay et al.
2003/0060248	A1	3/2003	Yamashita
2003/0065738	A1	4/2003	Yang et al.
2006/0111168	A1	5/2006	Nguyen et al.
2006/0202422	A1	9/2006	Bahar
2006/0252530	A1	11/2006	Oberberger et al.
2007/0021198	A1	1/2007	Muir et al.

(Continued)

FOREIGN PATENT DOCUMENTS

JP	2007236537	9/2007
JP	2008079836	4/2008

OTHER PUBLICATIONS

"U.S. Appl. No. 13/804,034 Final Office Action", May 14, 2015, 9 Pages.

(Continued)

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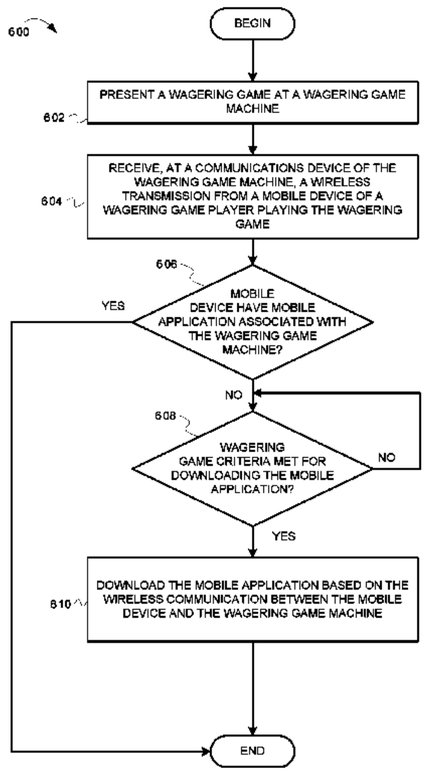
(74) *Attorney, Agent, or Firm* — DeLizio Law, PLLC

(57) **ABSTRACT**

In some embodiments, a wagering game is presented at a wagering game machine. A wireless communication is established between the wagering game machine and a mobile device. In response to a wagering game player satisfying a wagering game criteria when playing the wagering game, access to content can be enabled on the mobile device, wherein the content is based on a context resulting from the wagering game player playing the wagering game.

20 Claims, 11 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

2009/0170596	A1	7/2009	Gagner et al.
2010/0211431	A1	8/2010	Lutnick et al.
2010/0317423	A1	12/2010	Osborne
2012/0004026	A1	1/2012	Vann
2012/0094769	A1	4/2012	Nguyen et al.
2012/0122558	A1	5/2012	Lyons et al.
2012/0124624	A1	5/2012	Lau et al.
2013/0337878	A1	12/2013	Shepherd et al.
2013/0337890	A1	12/2013	Earley et al.

OTHER PUBLICATIONS

"U.S. Appl. No. 13/804,034 Office Action", Nov. 6, 2014, 17 Pages.
Co-pending U.S. Appl. No. 13/804,034, filed Mar. 14, 2013, 54 Pages.

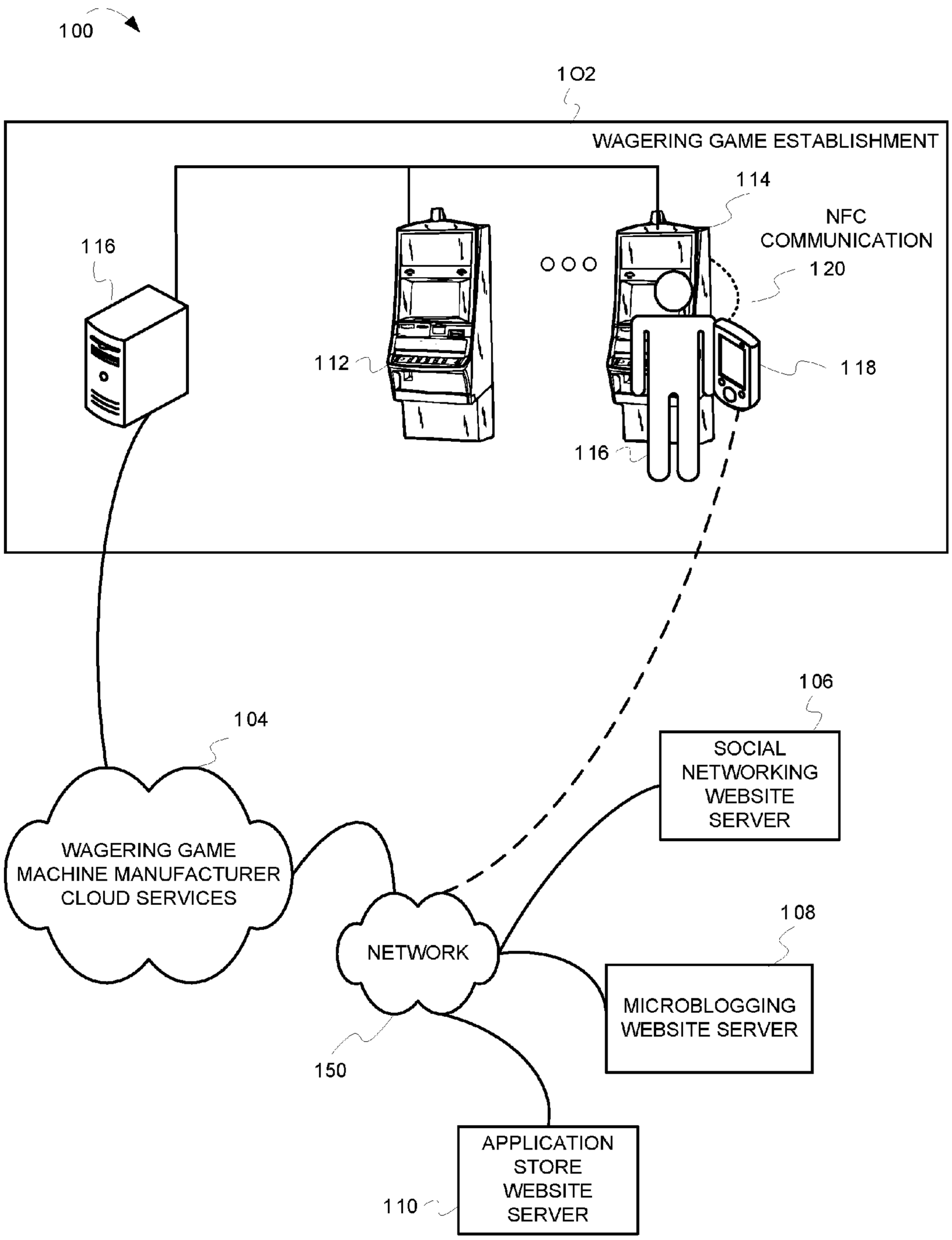

100
102
WAGERING GAME ESTABLISHMENT
114
NFC COMMUNICATION
120
116
112
118
116
106
104
SOCIAL NETWORKING WEBSITE SERVER
WAGERING GAME MACHINE MANUFACTURER CLOUD SERVICES
NETWORK
108
MICROBLOGGING WEBSITE SERVER
150
APPLICATION STORE WEBSITE SERVER
110

FIG. 1

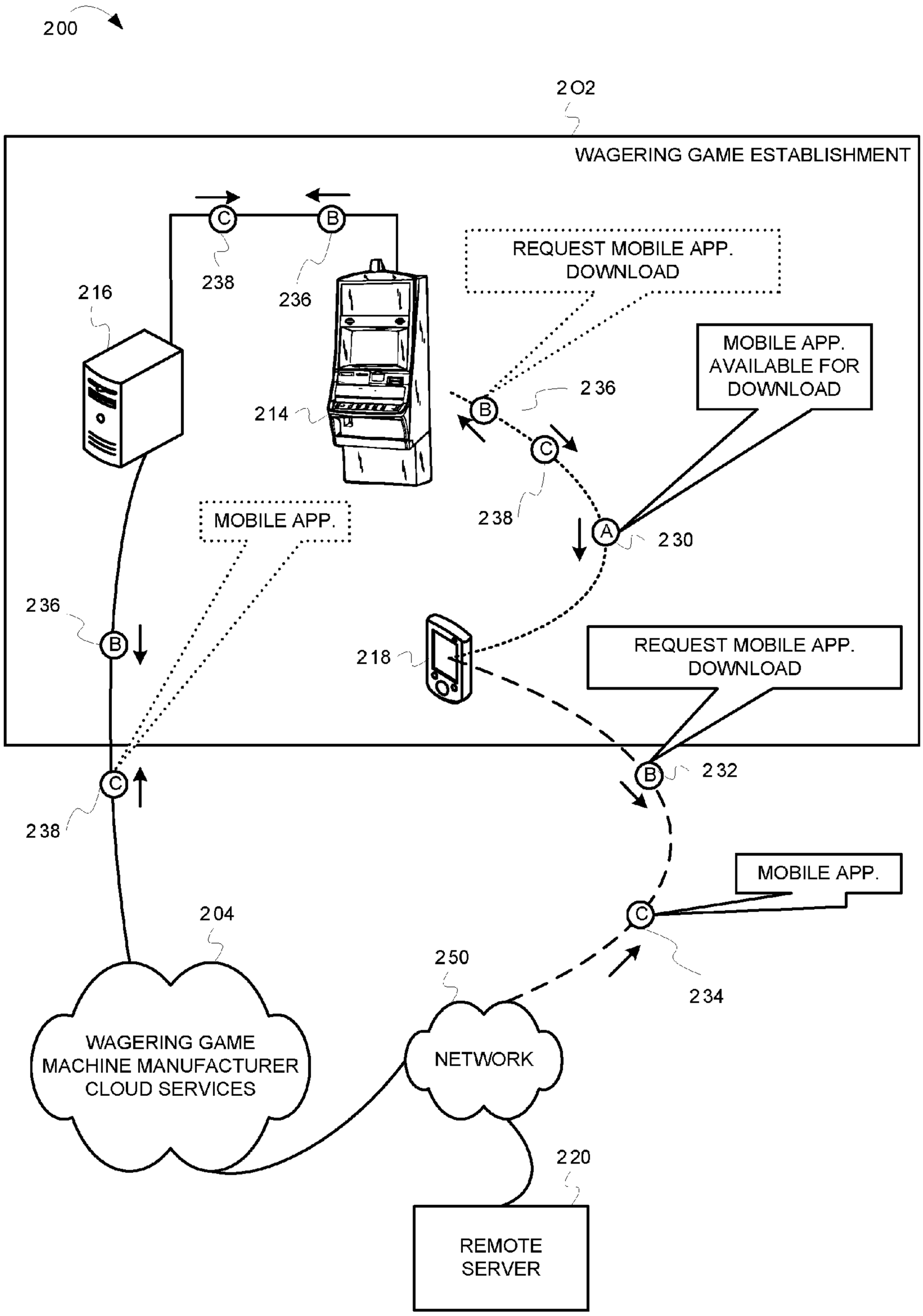

200
202
WAGERING GAME ESTABLISHMENT
C
B
238
236
216
214
REQUEST MOBILE APP. DOWNLOAD
MOBILE APP. AVAILABLE FOR DOWNLOAD
236
B
C
238
A
230
MOBILE APP.
236
B
218
REQUEST MOBILE APP. DOWNLOAD
C
238
B
232
MOBILE APP.
C
204
250
234
WAGERING GAME MACHINE MANUFACTURER CLOUD SERVICES
NETWORK
220
REMOTE SERVER

FIG. 2

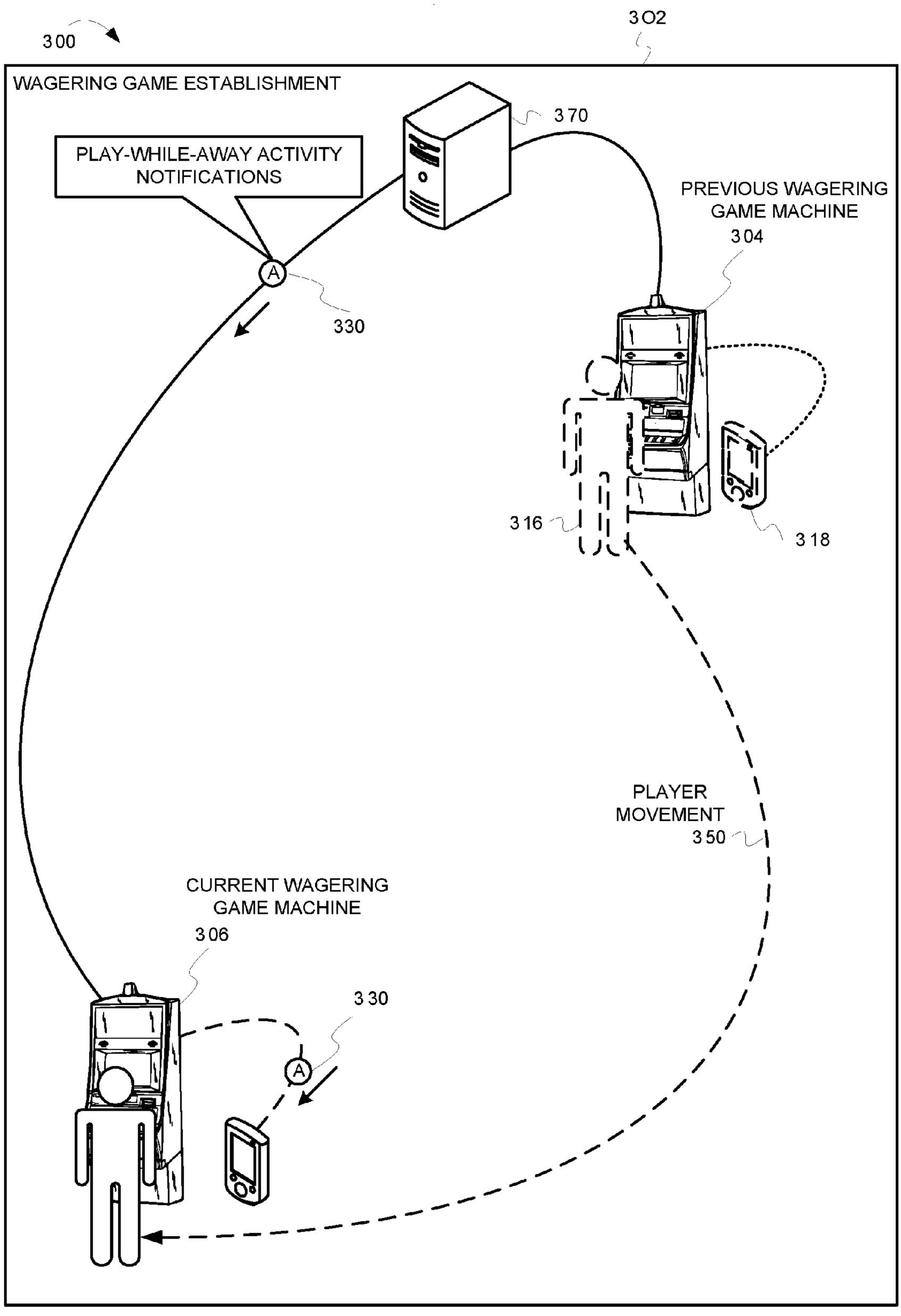

300
302
WAGERING GAME ESTABLISHMENT
370
PLAY-WHILE-AWAY ACTIVITY NOTIFICATIONS
A
330
PREVIOUS WAGERING GAME MACHINE
304
316
318
PLAYER MOVEMENT
350
CURRENT WAGERING GAME MACHINE
306
330
A

FIG. 3

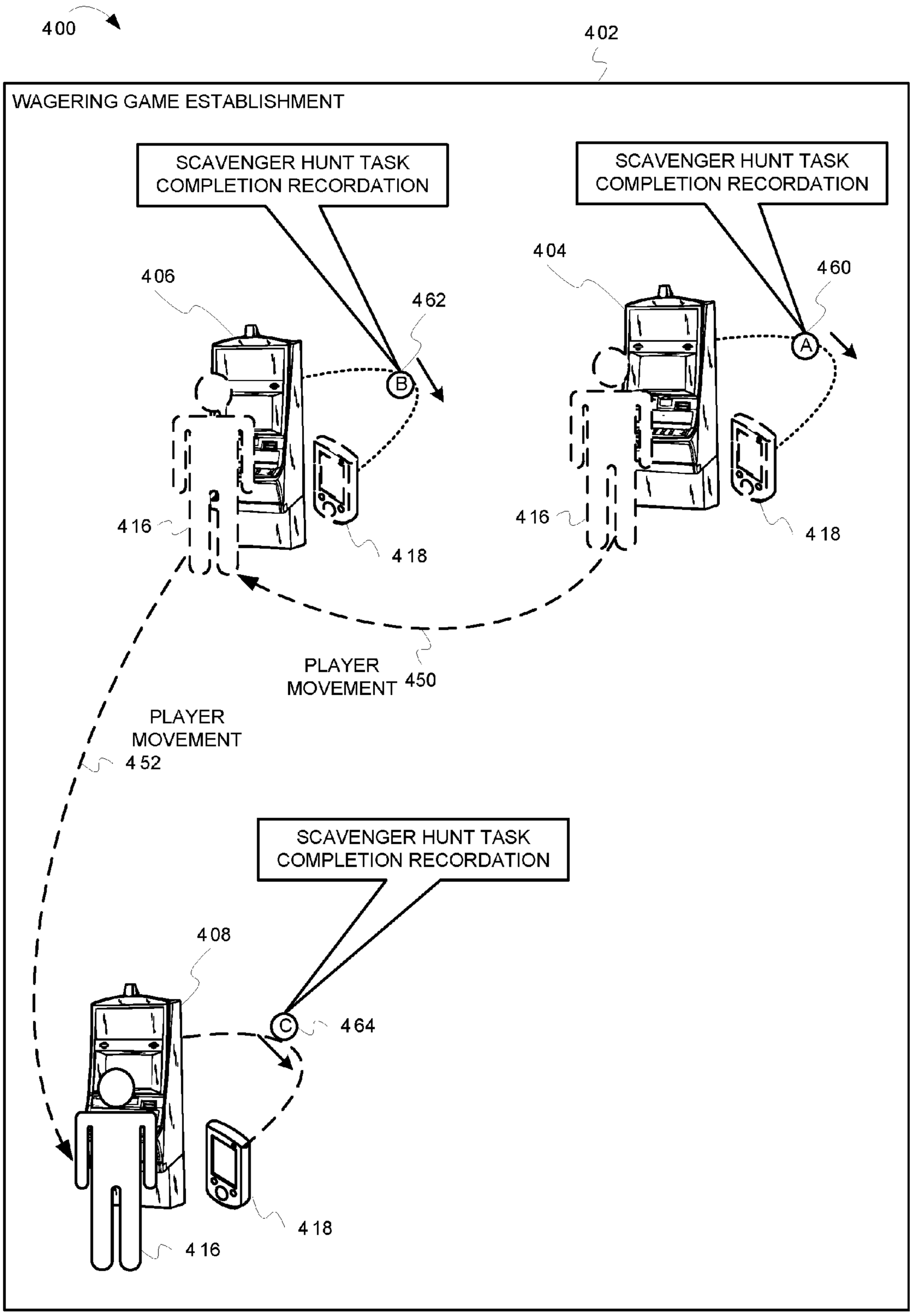

400
402
WAGERING GAME ESTABLISHMENT
SCAVENGER HUNT TASK COMPLETION RECORDATION
SCAVENGER HUNT TASK COMPLETION RECORDATION
404
406
460
462
A
B
416
418
416
418
PLAYER MOVEMENT 450
PLAYER MOVEMENT 452
SCAVENGER HUNT TASK COMPLETION RECORDATION
408
C
464
418
416

FIG. 4

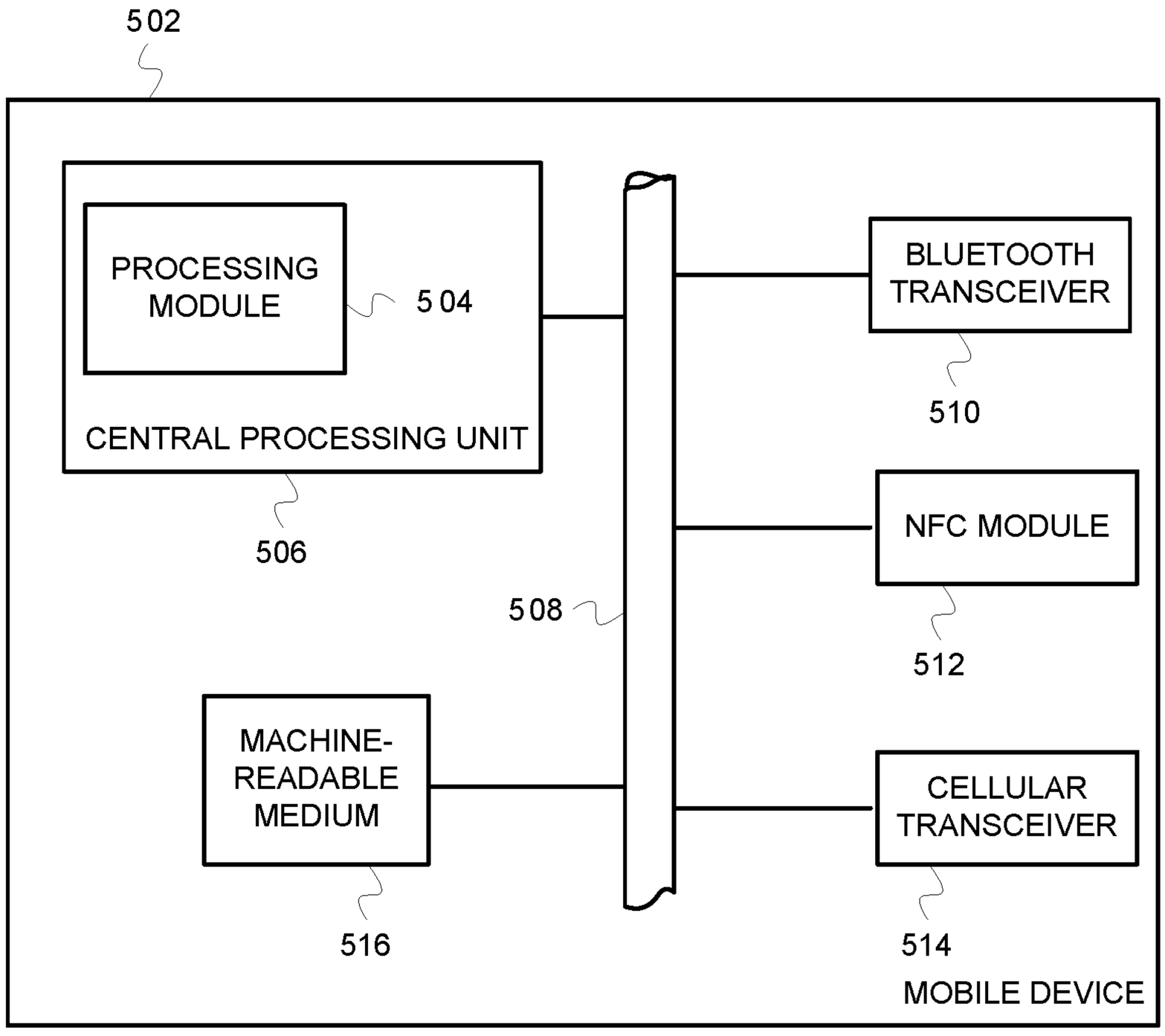

502
PROCESSING MODULE
504
CENTRAL PROCESSING UNIT
506
508
BLUETOOTH TRANSCEIVER
510
NFC MODULE
512
MACHINE-READABLE MEDIUM
516
CELLULAR TRANSCEIVER
514
MOBILE DEVICE

FIG. 5

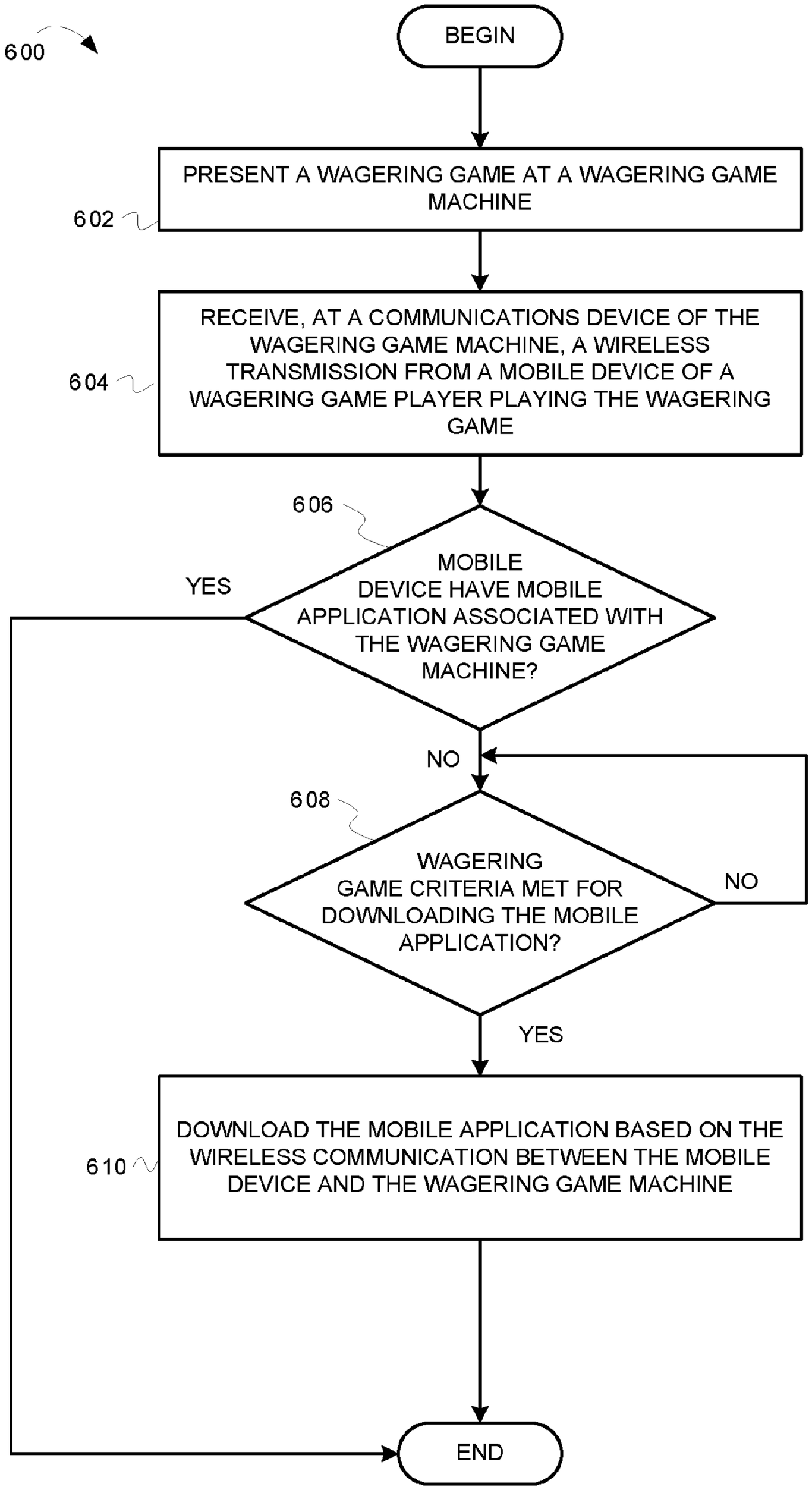

600
BEGIN
602
PRESENT A WAGERING GAME AT A WAGERING GAME MACHINE
604
RECEIVE, AT A COMMUNICATIONS DEVICE OF THE WAGERING GAME MACHINE, A WIRELESS TRANSMISSION FROM A MOBILE DEVICE OF A WAGERING GAME PLAYER PLAYING THE WAGERING GAME
606
MOBILE DEVICE HAVE MOBILE APPLICATION ASSOCIATED WITH THE WAGERING GAME MACHINE?
YES
NO
608
WAGERING GAME CRITERIA MET FOR DOWNLOADING THE MOBILE APPLICATION?
NO
YES
610
DOWNLOAD THE MOBILE APPLICATION BASED ON THE WIRELESS COMMUNICATION BETWEEN THE MOBILE DEVICE AND THE WAGERING GAME MACHINE
END

FIG. 6

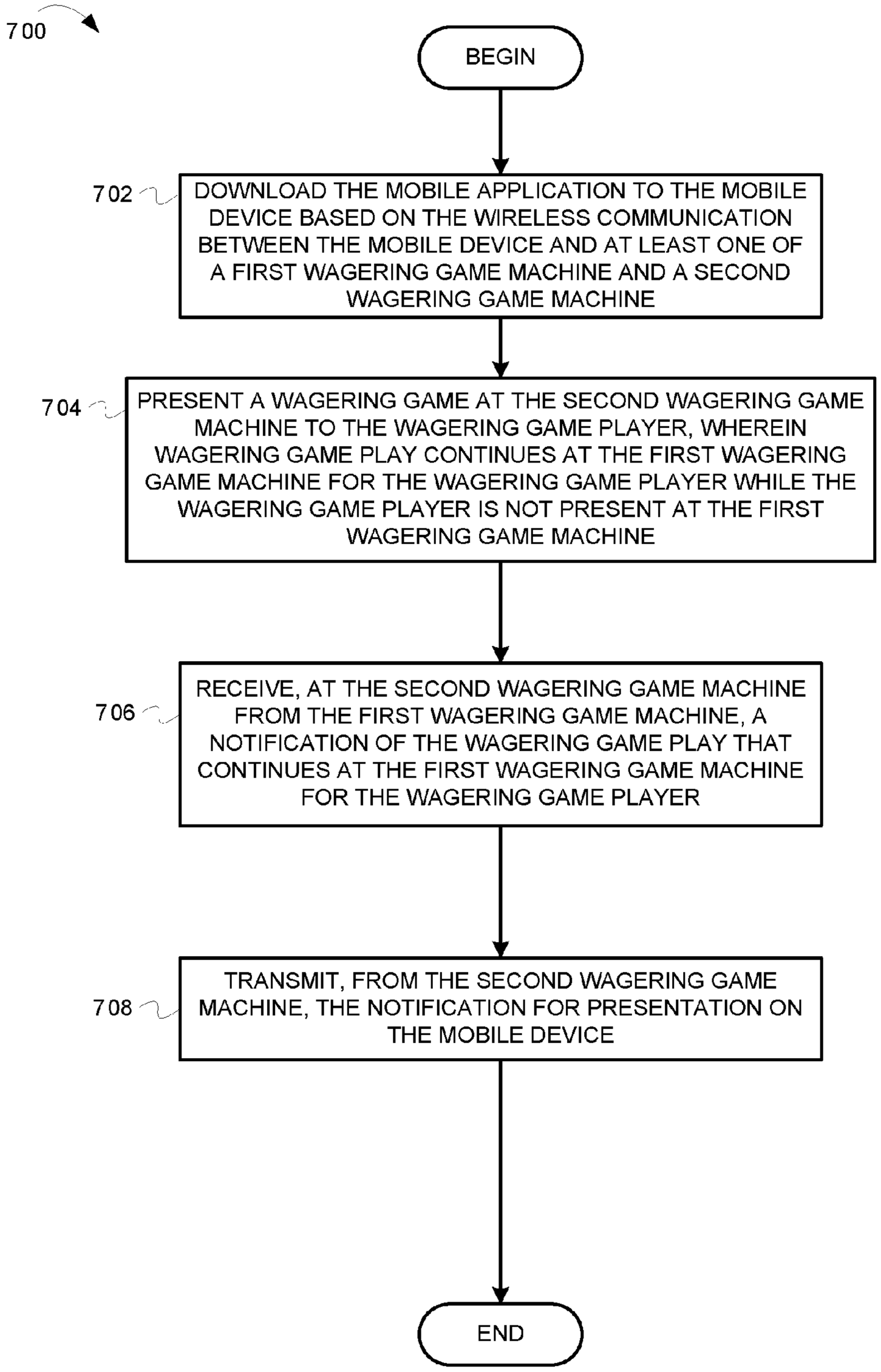

700
BEGIN
702
DOWNLOAD THE MOBILE APPLICATION TO THE MOBILE DEVICE BASED ON THE WIRELESS COMMUNICATION BETWEEN THE MOBILE DEVICE AND AT LEAST ONE OF A FIRST WAGERING GAME MACHINE AND A SECOND WAGERING GAME MACHINE
704
PRESENT A WAGERING GAME AT THE SECOND WAGERING GAME MACHINE TO THE WAGERING GAME PLAYER, WHEREIN WAGERING GAME PLAY CONTINUES AT THE FIRST WAGERING GAME MACHINE FOR THE WAGERING GAME PLAYER WHILE THE WAGERING GAME PLAYER IS NOT PRESENT AT THE FIRST WAGERING GAME MACHINE
706
RECEIVE, AT THE SECOND WAGERING GAME MACHINE FROM THE FIRST WAGERING GAME MACHINE, A NOTIFICATION OF THE WAGERING GAME PLAY THAT CONTINUES AT THE FIRST WAGERING GAME MACHINE FOR THE WAGERING GAME PLAYER
708
TRANSMIT, FROM THE SECOND WAGERING GAME MACHINE, THE NOTIFICATION FOR PRESENTATION ON THE MOBILE DEVICE
END

FIG. 7

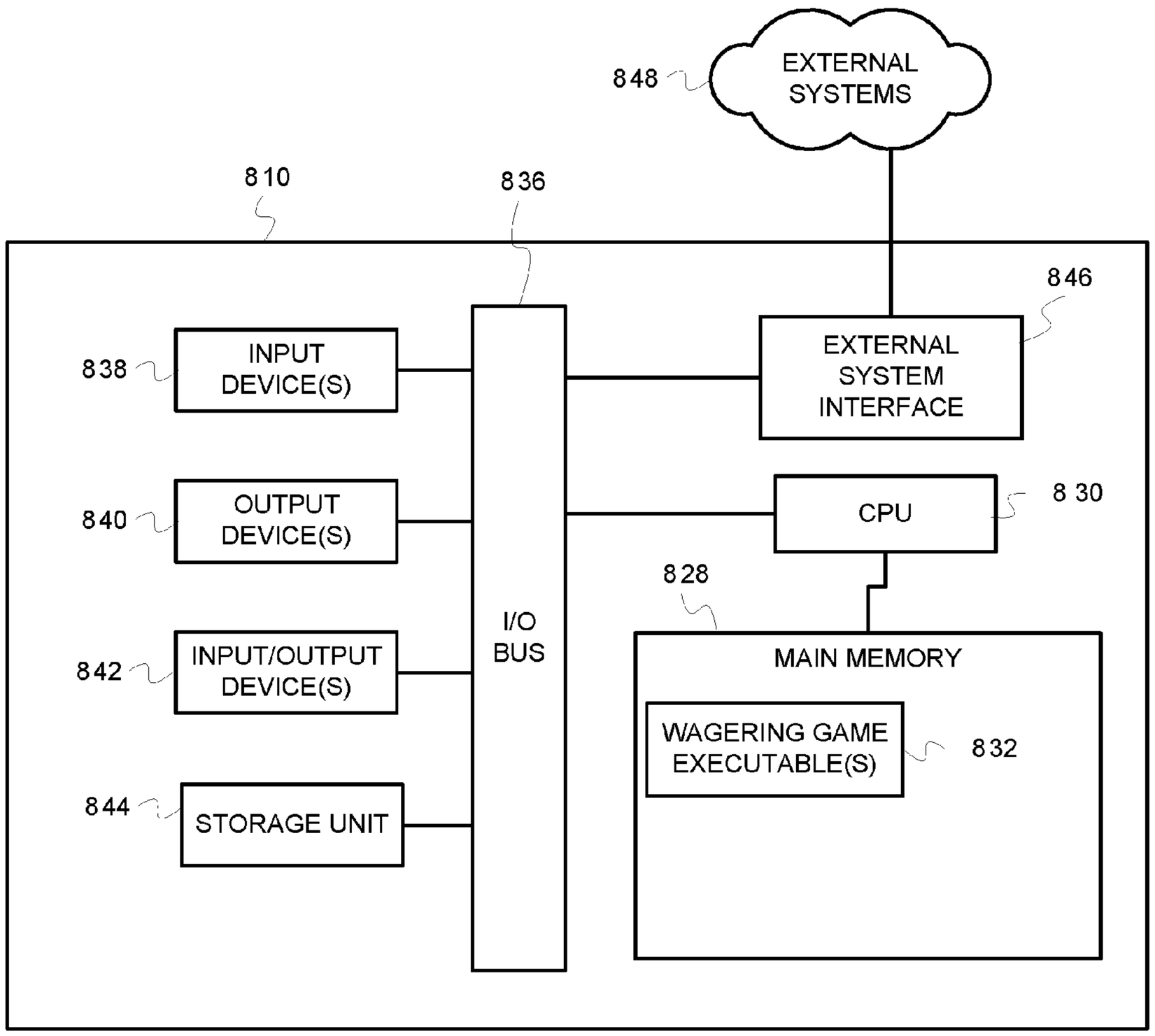

848
EXTERNAL SYSTEMS
810
836
846
838
INPUT DEVICE(S)
EXTERNAL SYSTEM INTERFACE
840
OUTPUT DEVICE(S)
CPU
830
828
842
INPUT/OUTPUT DEVICE(S)
I/O BUS
MAIN MEMORY
844
STORAGE UNIT
WAGERING GAME EXECUTABLE(S)
832

FIG. 8

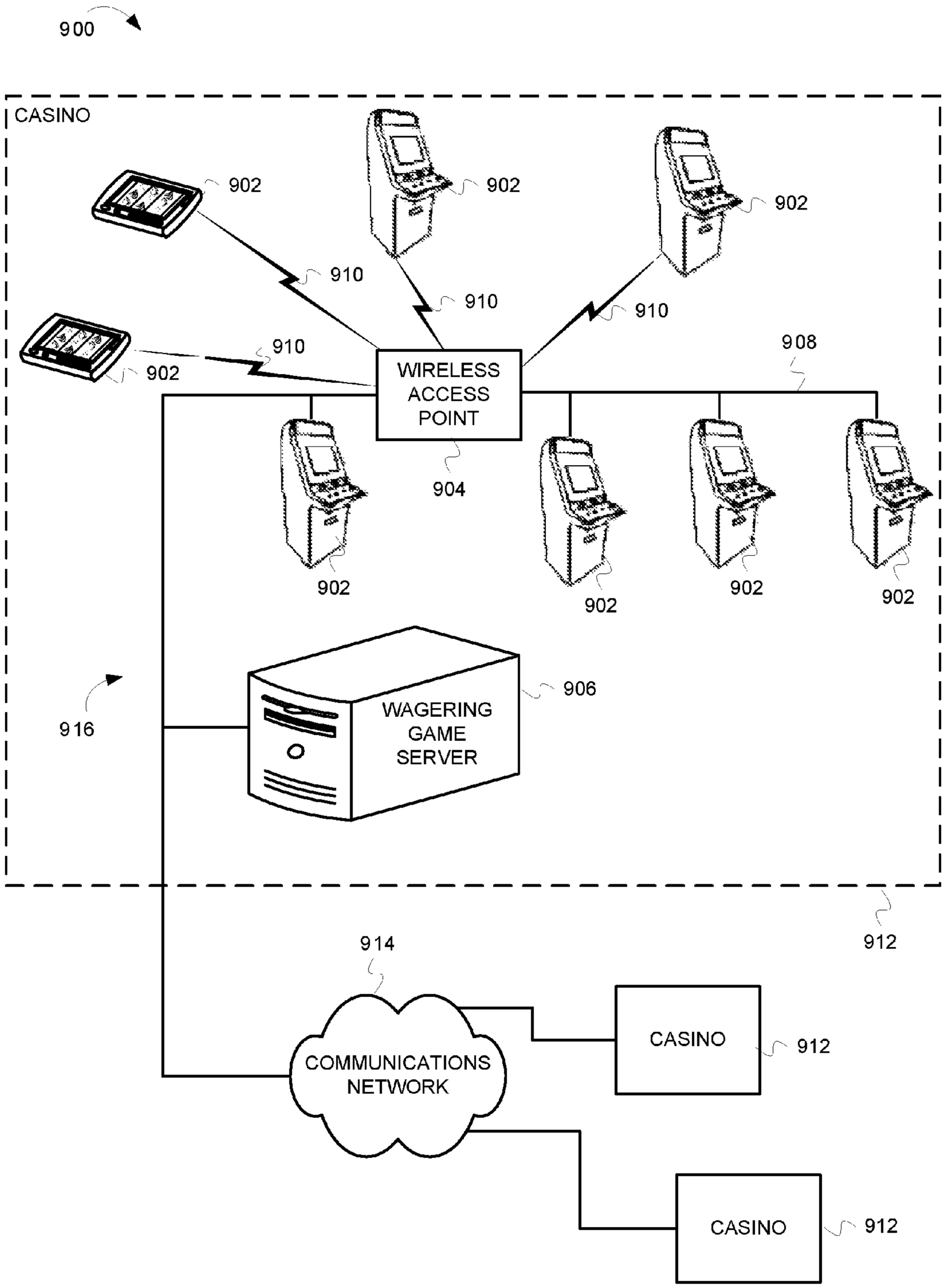

900
CASINO
902
902
902
910
910
910
910
902
908
WIRELESS ACCESS POINT
904
902
902
902
902
916
WAGERING GAME SERVER
906
914
912
COMMUNICATIONS NETWORK
CASINO
912
CASINO
912

FIG. 9

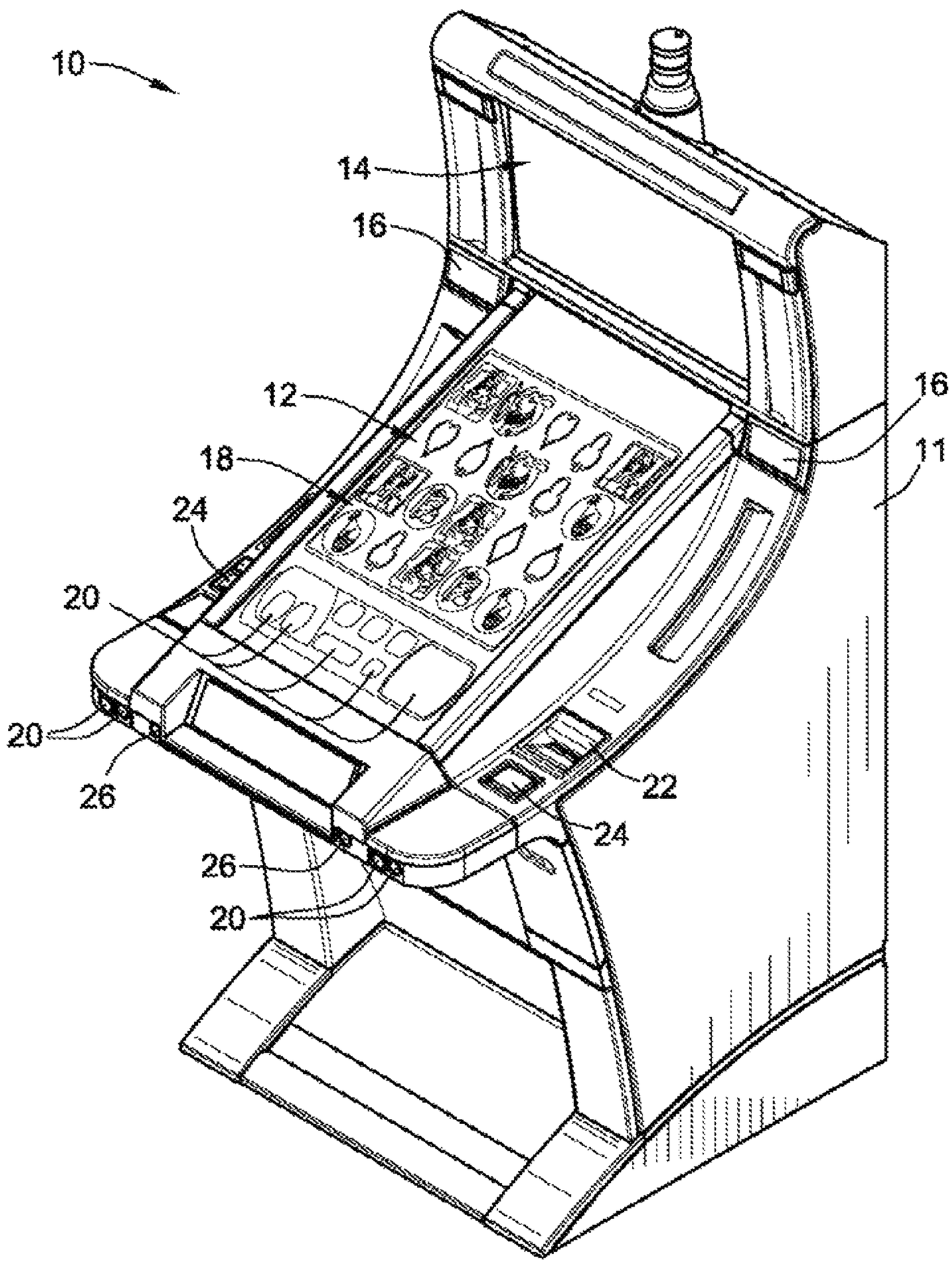


FIG. 10

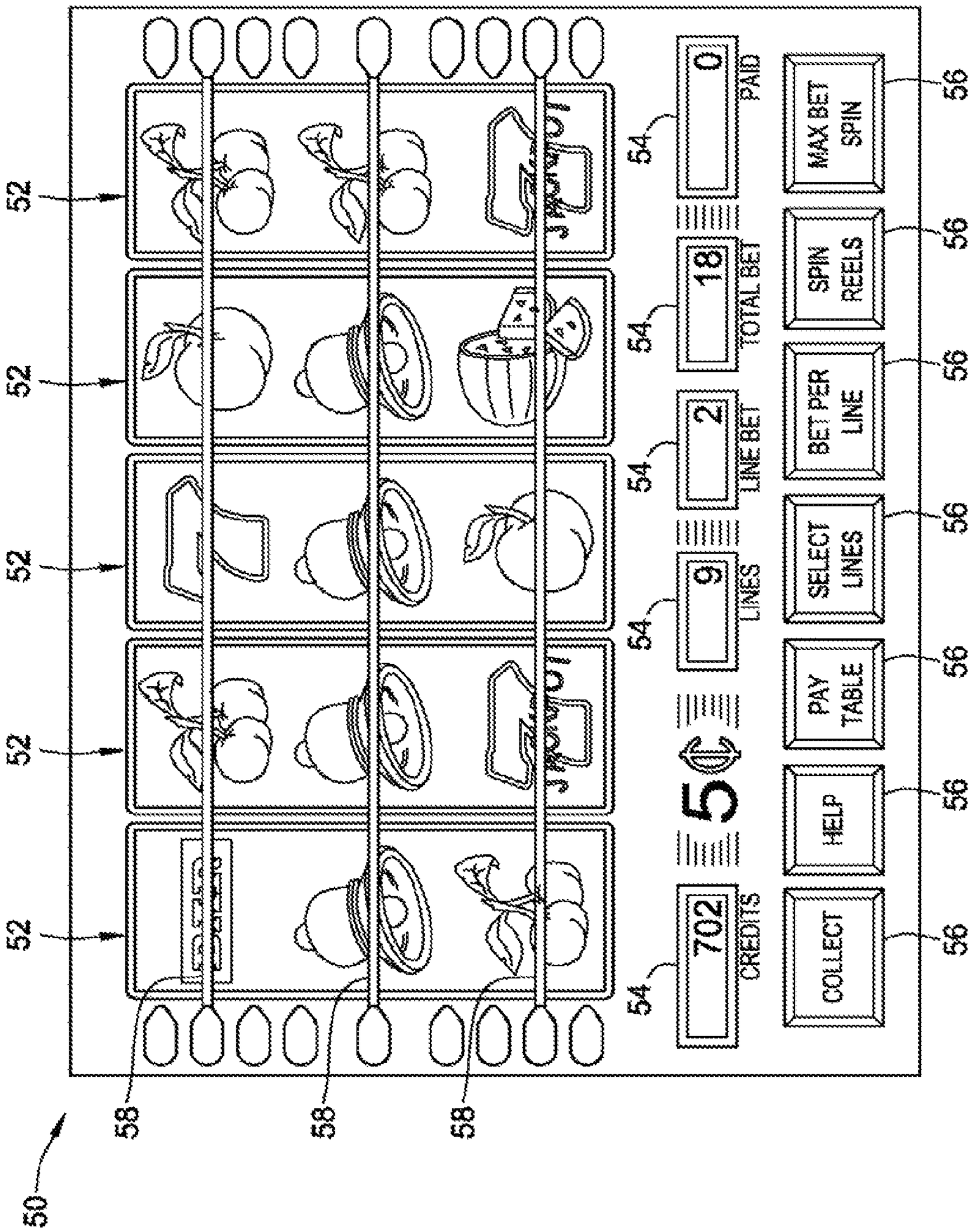

52
54
56
58
50
0
PAID
MAX BET
SPIN
18
TOTAL BET
SPIN
REELS
2
LINE BET
BET PER
LINE
9
LINES
SELECT
LINES
PAY
TABLE
HELP
702
CREDITS
COLLECT

FIG. 11

MOBILE APPLICATIONS AND WAGERING GAME MACHINES

RELATED APPLICATIONS

This application is a continuation application that claims priority benefit of U.S. application Ser. No. 13/804,034 filed 14 Mar. 2013 now U.S. Pat. No. 9,235,953, which claims priority benefit of U.S. Provisional Application No. 61/659,817 filed 14 Jun. 2012.

LIMITED COPYRIGHT WAIVER

FIELD

Embodiments of the inventive subject matter relate generally to wagering game systems, and more particularly to mobile applications and wagering game machines.

BACKGROUND

Wagering game machines, such as slot machines, video poker machines and the like, have been a cornerstone of the gaming industry for several years. Generally, the popularity of such machines depends on the likelihood (or perceived likelihood) of winning money at the machine and the intrinsic entertainment value of the machine relative to other available gaming options. Where the available gaming options include a number of competing wagering game machines and the expectation of winning at each machine is roughly the same (or believed to be the same), players are likely to be attracted to the most entertaining and exciting machines. Shrewd operators consequently strive to employ the most entertaining and exciting machines, features, and enhancements available because such machines attract frequent play and hence increase profitability to the operator. Therefore, there is a continuing need for wagering game machine manufacturers to continuously develop new games and gaming enhancements that will attract frequent play.

BRIEF DESCRIPTION OF THE FIGURES

Embodiments of the invention are illustrated in the Figures of the accompanying drawings in which:

FIG. **1** depicts a system for enabling wireless communication between mobile applications executing on mobile devices of wagering game players and wagering game machines on which the players are executing, according to some example embodiments.

FIG. **2** depicts a system that includes communications for enabling download of a mobile application to a mobile device, according to some example embodiments.

FIG. **3** depicts a system that includes communications for play-while-away activity notifications using a mobile application, according to some example embodiments.

FIG. **4** depicts a system that includes communications for tracking scavenger hunt task completion in a wagering game environment using a mobile application, according to some example embodiments.

FIG. **5** depicts a more detailed block diagram of a mobile device, according to some example embodiments.

FIG. **6** depicts a flowchart for downloading a mobile application to a mobile device of a wagering game player based on wireless communications with a wagering game machine that the wagering game player is playing, according to some example embodiments.

FIG. **7** depicts a flowchart for using a mobile application on a mobile device to provide notifications of play-while-away activity at a different wagering game machine, according to some example embodiments.

FIG. **8** depicts a block diagram illustrating a wagering game machine architecture, according to some example embodiments.

FIG. **9** depicts a block diagram illustrating a wagering game network, according to some example embodiments.

FIG. **10** depicts a perspective view of a wagering game machine, according to some example embodiments.

FIG. **11** depicts an image of a base-game screen for a wagering game machine, according to some example embodiments.

DESCRIPTION OF THE EMBODIMENTS

This description of the embodiments is divided into seven sections. The first section provides an introduction to some example embodiments, while the second section describes an example system environment. The second section is divided into four subsections. A first subsection describes example communications for a mobile application download. A second subsection describes example mobile applications. A third subsection describes example communications for a play-while-away mobile application. A fourth subsection describes example communications for a scavenger hunt mobile application. The third section describes an example mobile device. The fourth section describes example operations performed by some example embodiments. The fifth section describes a wagering game machine architecture, and the sixth section describes a wagering game network. The seventh section describes an example wagering game machine and the seventh section presents some general comments.

INTRODUCTION

This section provides an introduction to some example embodiments. Some example embodiments include short range wireless communications between a mobile device executing a mobile application and a wagering game machine. For example, the wireless communications is between a mobile device (e.g., a smart phone) of a wagering game player and the wagering game machine that the wagering game player is playing. In some example embodiments, this short range wireless communication is based on different types of communication standards (e.g., Near Field Communications (NFC), Bluetooth, etc.). In some example embodiments, this short range wireless communication comprises infrared transmission. The range of communication can vary but is generally considered short (e.g., less than 10 centimeters, less than 20 centimeters, less than 5 centimeter, less than three feet, less than 12 inches, less than six inches, etc.). In some example embodiments, the wireless communication can be either unidirectional or bi-directional.

The wireless communications can be communications regarding content that is specific to the game being played at the wagering game machine. In some example embodi-

ments, content is provided to the mobile device based on context of what is being played at the wagering game machine, context of where the player is within the wagering game (e.g., progress in the wagering game), the game play history by the player for the wagering game, etc. For example, a mobile application is downloaded to the mobile device of the wagering game player based on the theme of the wagering game machine. The mobile application can be downloaded from an application store hosted on a server and transmitted over a network (e.g., the Internet). The mobile application can be a version of the game being played at the wagering game machine. To illustrate, if the game at the wagering game machine is a slot game having a theme A, the wagering game machine can provide this identification to the mobile device. The mobile device can then download a version of the slot game having a theme A for play on the mobile device. As further described below, the mobile device can download the content from a network server based on a separate wireless communication (independent of the wagering game machine). Alternatively or in addition, the mobile device can download the content from a network server based on the wireless communication with the wagering game machine. Alternatively or in addition, the mobile device can download the content from local storage within the wagering game machine based on the wireless communication with the wagering game machine.

In some example embodiments, the version of the wagering game playable on the mobile device is free based on this communication between the wagering game machine and the player's mobile device after the player has wagered a minimum amount. Otherwise, this version of the wagering game playable on the mobile device is generally available for download for a given monetary cost over the Internet or is not available any other way. Additionally, this free version of the wagering game may only be available at a specific wagering game establishment or group of wagering game establishments owned by a same entity. Also, this promotion for giving away the free version can be on certain days or certain times of day. For example, a wagering game establishment may want to incentivize persons during days or times when foot traffic is generally small. In some example embodiments, the version of the wagering game playable on the mobile device is only available after completion of some criteria. For example, the criteria can include the player reaching a bonus round for the wagering game at the wagering game machine; the player logging into a player account associated with the wagering game establishment and/or the wagering game manufacturer, exceeding a certain monetary amount inputted into the wagering game machine (i.e., coin-in), etc.

In another example, a free limited version of a wagering game can be generally available for download to the mobile device. However, the full version of the wagering game playable on the mobile device may only be available after the player has obtained a certain achievement, level, etc. of the wagering game at the wagering game machine. Accordingly, the progression in the play at the wagering game machine determines the amount of content (e.g., levels) that is available for download and play of the version for the mobile application. For example, as the wagering game player progresses further in the play at the wagering game machine, more content is available for the version of the mobile application.

In some example embodiments, unique content is unlocked within the mobile application because of the wireless communications between the mobile device and the wagering game machine. For example, the mobile application can be available without this communication with the wagering game machine. However, because of this communication with the wagering game machine, the mobile application that is downloaded includes new levels, new content, etc. that would be unavailable otherwise. In some example embodiments, the unique content is unlocked within the wagering game machine because of the wireless communications between the mobile device and the wagering game machine.

The mobile application can be an application that enables communications among the different wagering game players that are currently playing the specific type of the wagering game machine. For example, a chat session can be established to enable exchanges of tips, payouts, etc. for the wagering game.

Some example embodiments are incorporated into the play-while-away wagering game configurations. In particular, the wireless communication with the mobile application on the mobile device can be used for updates regarding play-while-away activity at a different wagering game machine.

Some example embodiments are applicable to a scavenger hunt-based activity across a number of wagering games. In such an example, a wagering game player is required to perform different types of wagering at different wagering game machines to complete the scavenger hunt. The wagering game player's mobile device can include a mobile application to wirelessly communicate with these different wagering game machines. In particular, after an assigned wagering for a particular wagering game machine is complete, the mobile application on the mobile device receives a wireless communication from this wagering game machine of this completed task. Accordingly, the particular mobile application tracks the completion of the different tasks for the scavenger hunt by the wagering game player.

In some example embodiments, content can be uploaded from the mobile device to the wagering game machine that affects the wagering game play on the wagering game machine. For example, the wagering game player can upload visual or audio content from their mobile device that is incorporated into the wagering game play at the wagering game machine. Such content can include changes to the look of a character representative of the wagering game player in the game; changes to the background; changes to the card backs in a poker game; and replacement of a face of a character in the wagering game with a face from an image stored on the mobile device.

System Environment

This section describes various system environments of some example embodiments. This section includes various configurations and applications for communications between mobile applications executing on mobile devices of wagering game players and wagering game machines on which the players are executing. FIG. **1** depicts a system for enabling wireless communication between mobile applications executing on mobile devices of wagering game players and wagering game machines on which the players are executing, according to some example embodiments. This wireless communication can be based on any of a number of different standards (e.g., NFC, Bluetooth, etc.). In some example embodiments, the mobile applications are downloaded to the mobile device in response to establishment of communication between the mobile device and the wagering game machine. The mobile applications can be downloaded from or through the wagering game machine. Alternatively

or in addition, the mobile applications can be downloaded from some remote web services or server over a network (e.g., the Internet). As further described below, the mobile application can be various content related to the wagering game machine. For example, the mobile application can be a mobile version of the wagering game being played on the wagering game machine.

FIG. **1** depicts a system **100** that includes a number of wagering game machines (shown as a wagering game machine **112** and a wagering game machine **114**) and a wagering game server **116**. The wagering game machine **112-114** and the wagering game server **116** are part of a wagering game establishment **102** and communicatively coupled together. The system **100** also includes wagering game machine manufacturer cloud services **104** and a number of servers (servers **106-108**) that can be external to the wagering game establishment and part of a network for providing web services (e.g., the Internet). As shown, the wagering game machine manufacturer cloud services **104** and the servers **106-108** are coupled together through a network **150**. The server **106** is a server for hosting a social networking website. The server **108** is a server for hosting a microblogging website. The server **110** is a server for hosting an application store website. The mobile applications that are downloaded to the mobile devices can be downloaded from or through the wagering game machine manufacturer cloud services **104** and the servers **106-108**.

To illustrate, a wagering game player **116** is playing a wagering game at the wagering game machine **114**. The wagering game player **116** has a mobile device **118**. Examples of the mobile device **118** include a smart phone, tablet computer, Personal Digital Assistant (PDA), etc. As shown, the mobile device **118** can access the wagering game machine manufacturer cloud services **104** and the servers **106-108** through a wireless communication using the network **150**. The mobile device **118** can be communicatively coupled to the network **150** using radio communications (e.g., Global System for Mobile Communications (GSM), Code Division Multiples Access (CDMA), etc.).

As shown, the mobile device **118** has an NFC communication **120** established with the wagering game machine **114**. The NFC communication **120** can be established once the mobile device **118** is in communication range of the wagering game machine **114**. In some example embodiments, this short range wireless communication comprises Bluetooth or infrared transmission. The range of communication can vary but is generally considered short (e.g., less than 10 centimeters, less than 20 centimeters, less than 5 centimeter, less than three feet, less than 12 inches, less than six inches, etc.). In some example embodiments, the wireless communication can be either unidirectional or bi-directional. The wagering game machine **114** can notify the mobile device **118** that a mobile application that is related to the wagering game machine **114** is available for download. In some example embodiments, the mobile application is not available for download until a wagering game criteria are met. The wagering game criteria can vary. Examples include a wagering game player logging into a player account associated with the wagering game establishment **102** and/or the wagering game manufacturer, exceeding a certain monetary amount inputted into the wagering game machine **114** (i.e., coin-in), exceeding a certain monetary amount wagered at the wagering game machine **114**, etc.

In some example embodiments, using the NFC communication **120**, the wagering game machine notifies the mobile device **118** that a mobile application is available for download. The wagering game player is then given the option to down the mobile application to their mobile device **118** (assuming the mobile application is not already downloaded therein). Also, the mobile application can be downloaded from or through the wagering game machine **114** using the NFC communication **120**. Alternatively or in addition, the mobile application can be downloaded independent of the wagering game machine **114** and through the wireless communication with the network **150**. The mobile application can be stored in the wagering game machine manufacturer cloud services **104**. Accordingly, the mobile application can be accessed through the wagering game machine **114** and the wagering game server **116**. Alternatively or in addition, the mobile application can be accessed from the wagering game machine manufacturer cloud services **104** using any one of the servers **106-110**. For example, the mobile device **118** can download the mobile application through an account on the social networking website using the social networking website server **106**. In some example embodiments, the mobile application can be stored and accessed from the application store website server **110**. In some example embodiments, the wagering game player **116** is given the option of the location from which to download and the route for the download. In some example embodiments, content is provided to the mobile device based on context of what is being played at the wagering game machine, context of where the player is within the wagering game (e.g., progress in the wagering game), the game play history by the player for the wagering game, etc.

Example Communications for Mobile Application Download

A more detailed description of the communications for downloading the mobile application is now described. In particular, FIG. **2** depicts a system that includes communications for enabling download of a mobile application to a mobile device, according to some example embodiments. In particular, FIG. **2** depicts a system **200** that illustrates the communications between a wagering game machine and a mobile device to download a mobile application on the mobile device.

A wagering game machine **214** and a wagering game server **216** are part of a wagering game establishment **202** and communicatively coupled together. The system **100** also includes wagering game machine manufacturer cloud services **104** and a remote server **220** (that is representative of one of the servers **106-108** of FIG. **1**) that can be external to the wagering game establishment and part of a network for providing web services (e.g., the Internet). As shown, the wagering game machine manufacturer cloud services **104** and the remote server **220** are coupled together through a network **250**. As shown, the mobile applications that are downloaded to the mobile devices can be downloaded from or through the wagering game machine manufacturer cloud services **104** and the servers **106-108**.

In this example, the wagering game player (not shown) associated with a mobile device **218** is playing a wagering game at the wagering game machine **214**. In response to being in wireless communication range of the mobile device **218**, the wagering game machine **214** can initiate communication with the mobile device **218**. In this example, using the wireless communication, the wagering game machine **214** notifies the mobile device **218** that a mobile application that is related to the wagering game machine **218** is available for download (communication **230**). In some example embodiments, this notification is not transmitted until a

wagering game criteria are met. As described above, examples of a wagering game criteria can be a login by the wagering game player into their player account associated with the wagering game establishment **202** and/or the wagering game manufacturer, exceeding a certain monetary amount inputted into the wagering game machine **214** (i.e., coin-in), exceeding a certain monetary amount wagered at the wagering game machine **214**, etc.

The wagering game player is then given the option to download the mobile application to their mobile device **218** (assuming the mobile application is not already downloaded therein). Also, the mobile application can be downloaded from or through the wagering game machine **214** using the wireless communication. Alternatively or in addition, the mobile application can be downloaded independent of the wagering game machine **214** and through the wireless communication with the network **250**. The mobile application can be stored in the wagering game machine manufacturer cloud services **204**. Accordingly, the mobile application can be accessed through the wagering game machine **214** and the wagering game server **216**. Alternatively or in addition, the mobile application can be accessed from the wagering game machine manufacturer cloud services **204** using the remote servers **220**. For example, the mobile device **218** can download the mobile application through an application store website. In some example embodiments, the wagering game player is given the option of the location from which to download and the route for the download.

FIG. **2** depicts the two different routes for downloading of the mobile application to the mobile device **218**. For the first route, the mobile device **218** can download the mobile application independent of a route that includes the wagering game machine **214**. The mobile device **218** requests the mobile application from the wagering game machine manufacturer cloud services **204** or the remote server **220** (communication **232**). In some example embodiments, the mobile application is stored in the wagering game machine manufacturer cloud services **204**. Accordingly, a request for the mobile application to the remote server **220** can translate to a download from the wagering game machine manufacturer cloud services **204**. In response to the request, the mobile application is downloaded to the mobile device **218** (communication **234**).

For the second route, the mobile device **218** can download the mobile application through the wagering game machine **214** using the wireless communication established with the wagering game machine **214** (communication **236**). The wagering game machine **214** transmits the request to the wagering game server **216**. The wagering game server **216** then retrieves the mobile application from the wagering game machine manufacturer cloud services **204**. In response, the wagering game machine manufacturer cloud services **204** transmit the mobile application back to the wagering game server **216** (communication **238**). The wagering game server **216** then transmits the mobile application to the wagering game machine **214**. The wagering game machine **214** then transmits the mobile application to the mobile device **218** using the wireless communication. In some example embodiments, the mobile application can be stored locally in the wagering game machine **214**. Therefore, the wagering game machine **214** can then download the mobile application to the mobile device **218** without the backend communications.

Example Mobile Applications

The mobile application can relate to different types of content related to the wagering game machine **214**. For example, the mobile application can be a version of the game being played at the wagering game machine **214**. In some example embodiments, the version of the wagering game playable on the mobile device **218** is free based on this communication between the wagering game machine **214** and the player's mobile device **218** after the player has wagered a minimum amount. Otherwise, this version of the wagering game playable on the mobile device **218** is generally available for download for a given monetary cost over the Internet or is not available any other way. Additionally, this free version of the wagering game may only be available at a specific wagering game establishment or group of wagering game establishments owned by a same entity. Also, this promotion for giving away the free version can be on certain days or certain times of day. For example, the wagering game establishment **202** may want to incentivize persons during days or times when foot traffic is generally small. In some example embodiments, content is provided to the mobile device based on context of what is being played at the wagering game machine, context of where the player is within the wagering game (e.g., progress in the wagering game), the game play history by the player for the wagering game, etc.

In another example, a free limited version of a wagering game can be generally available for download to the mobile device **218**. However, the full version of the wagering game playable on the mobile device **218** may only be available after this communication between the wagering game machine **214** and the player's mobile device **218** and after the player has obtained a certain achievement, level, etc. of the wagering game at the wagering game machine **214**. Accordingly, the progression in the play at the wagering game machine **214** determines the amount of content (e.g., levels) that is available for download and play of the version for the mobile application. For example, as the wagering game player progresses further in the play at the wagering game machine **214**, more content is available for the version of the mobile application on the mobile device **218**.

Some example embodiments are incorporated into the wagering game machine **214** wherein a wagering game player advances to higher levels over time based on game play. For example, for an adventure game (e.g., Lord of the Rings™), a wagering game player accumulates miles based on game play to advance to higher levels. The wagering game player can also accumulate miles online by playing casual (nonwagering) games related to the adventure game. For example, players can have player accounts for playing these casual games from the wagering game machine manufacturer cloud services **204**. This same player account can be accessible through the wagering game machine **214**. The wagering game player can use their player account for tracking these miles that are accumulated through wagering game play and online casual games.

In some example embodiments, the mobile application playable on the mobile device **218** offers these same casual games for accumulation of miles. If the mobile application is downloaded to the mobile device **218** as part of or in response to the communication with the wagering game machine **214** having this adventure game, the player can receive more miles (e.g., double miles) for a same casual game using this mobile application in comparison to online play. In some example embodiments, the mobile application downloaded as part of or in response to the communication with the wagering game machine can include promotional material or content for the wagering game establishment. The wagering game establishment is therefore willing to award more miles for casual game play using the mobile

application because of the promotional content that is included therein. In some example embodiments, if the mobile application is downloaded to the mobile device **218** as part of or in response to the communication with the wagering game machine **214** having this adventure game, the player unlocks content (e.g., new levels, bonuses, etc.), given awards, given promotional credits, etc.

In some example embodiments, unique content is unlocked within the mobile application because of the wireless communications between the mobile device **218** and the wagering game machine **214**. For example, the mobile application can be available without this communication with the wagering game machine **214**. However, because of this communication with the wagering game machine **214**, the mobile application that is downloaded includes new levels, new content, etc. that would be unavailable otherwise.

The mobile application can be an application that provides a tutorial, a history of big wins, etc. for the wagering game machine **214**. The mobile application can be an application to enable texting to your friends, contacts, etc. that are side betting on your wagering game activity at the wagering game machine **214**.

The mobile application can be an application that allows for downloading of content from the wagering game machine **214**. For example, the downloadable content can also include images, video, etc. of a replay of a win at the wagering game machine **214** that is downloaded from the wagering game machine **214** to the mobile device **218** using this wireless communication. Additionally, the mobile application can provide for the transmission of these images, video, etc. of the replay of the win to friends, contacts, etc. of the wagering game player, or posted on the wagering game player's account at a social networking website or microblogging website, etc. at the remote server **220**.

The mobile application can be an application that enables communications among the different wagering game players that are currently playing the specific type of the wagering game machine **214**. For example, a chat session can be established to enable exchanges of tips, payouts, etc. for the wagering game.

The mobile application can be an application that enables the player to create an account or access their current player account for a web services account for a specific wagering game establishment or the specific manufacturer of the wagering game machine. Additionally, once logged into their player account, the mobile application enables the wagering game player to enter a tournament for players playing across different wagering game machines of the same type in a same wagering game establishment or across multiple wagering game establishments. In some example embodiments, the players can enter such a tournament after they have reached a certain level of game play at the wagering game machine. Accordingly, after this level is reached, the wagering game machine **214** wirelessly communicates with the mobile device **218** that this level has been obtained. In response, the mobile application then presents an option for the wagering game player to enter the tournament for the wagering game at the wagering game machine **214**.

In some example embodiments, a mobile application on the mobile device **218** can provide recordkeeping about wagering game play at the wagering game machine **214**. In particular, the wagering game machine **214** can use the wireless communication with the mobile device **218** to provide data about wins, losses, time and date when this activity has occurred, the serial number of the wagering game machine **214**, fault information to a technician for diagnostic purposes, event meters showing game statistics, location of the wagering game establishment, etc. Such data can be particularly useful for reporting of taxes at a subsequent date.

In some example embodiments, the mobile application can be an application that provides a notification when a different wagering game machine is available. In particular, the wagering game player can use the mobile application to wirelessly communicate that a notification be provided by the current wagering game machine when the different wagering game machine is available. The current and different wagering game machines are communicatively coupled together through a network. Network communication from the different wagering game machine to the current wagering game machine provides this notification. The current wagering game machine (the wagering game machine **214**) can then provide this notification to the wagering game player using the mobile application through the wireless communication with the mobile device **218**. In some example embodiments, the wagering game player can use the mobile application to reserve the different wagering game machine for a short time period (e.g. two minutes).

In some example embodiments, this wireless communication can affect game play at the wagering game machine **214**. For example, because of the mobile device **218** (with the mobile application) being present and wirelessly communicating with the wagering game machine **214**, additional content is unlocked or available on the wagering game machine **214** that would not be otherwise. For example, certain paths within an adventure game are now shown on the wagering game machine **214** because the mobile application on the mobile device **218** is wirelessly communicating with the wagering game machine **214**.

In some example embodiments, content can be uploaded from the mobile device **218** to the wagering game machine **214** that affects the wagering game play on the wagering game machine **214**. For example, the wagering game player can upload visual or audio content from their mobile device **218** that is incorporated into the wagering game play at the wagering game machine **214**. Such content can include changes to the look of a character representative of the wagering game player in the game; changes to the background; changes to the card backs in a poker game; and replacement a face of a character on the wagering game with a face from an image stored on the mobile device **218**.

In some example embodiments, the mobile application on the mobile device **218** is used for shared bonuses among wagering game players at different wagering game machines. For example, a wagering game player can share a bonus from their wagering game with other wagering game players (e.g., friends) at other wagering game machines. In one such example, the mobile applications are used for notification (using wireless communications from the wagering game machines) and acceptance of the shared bonus. Therefore, in contrast to a pop-up screen on the wagering game machine, notification occurs via the mobile application. In some example embodiments, wagering game players can only be a part of shared bonus if the mobile application is on their mobile device and is communicating with the wagering game machine. This embodiment incentivizes the wagering game players to download and use the mobile applications that can include promotional content, material, etc.

Example Play-while-Away Mobile Application

Some example embodiments are incorporated into the play-while-away wagering game configurations. In particu-

lar, the play-while-away wagering games allow a wagering game player to initiate game play and then continue to enable the game play after the wagering game player leaves a wagering game machine where the game play was initiated. One such example includes a wagering game having a fishing theme. A community event displayed on a community display for a bank of wagering game machines includes a fish tank. At some point after the wagering game player has played the base game on one of the wagering game machines, a fish associated with the wagering game player is dropped into the fish tank in the community display. Alternatively or in addition, the wagering game player can purchase a fish that is dropped into the fish tank. At some later time, the fish is removed from the fish tank (based on a random determination). While in the community event in the fish tank, the wagering game player can win prizes based on the fish (not requiring any active participation by the wagering game player). Accordingly, the wagering game player can walk away from the wagering game machine but continue to win the prizes based on the fish in the community event. In some example embodiments, after this wagering game player's mobile device establishes wireless communication with a same or different wagering game machine, notification of the prizes won at the play-while-away wagering game can be provided to the wagering game player. This notification can also be through a mobile application that is downloaded to the mobile device (as part of the wireless communication).

To illustrate, FIG. **3** depicts a system that includes communications for play-while-away activity notifications using a mobile application, according to some example embodiments. In particular, FIG. **3** depicts a system **300** that illustrates the communications between a previous wagering game machine (where play-while-away activity is occurring) and a current wagering game machine regarding notification of play-while-away activity using a mobile application.

A previous wagering game machine **304** and a current wagering game machine **306** are part of a wagering game establishment **202** and communicatively coupled together. The previous wagering game machine **304** is a machine where a wagering game player was previously playing a wagering game. Also, the previous wagering game machine **304** provides for play-while-away activity wherein the wagering game player can continue to win even when they are not physically present at the wagering game machine. For example as described above, the previous wagering game machine **302** can be part of a bank of wagering game machines that includes a community event. The community event can provide wins to the wagering game player **316** even after they left the previous wagering game machine **304**. The wagering game player **316** has a mobile device **318**. A mobile application related to the play-while-away activity can be downloaded while the wagering game player **318** is still at the previous wagering game machine **304** or at the current wagering game machine **306**. The downloading of the mobile application can be based on the communications described above in reference to FIGS. **1-2**.

After starting the play-while-away activity at the previous wagering game machine **304**, the wagering game player moves to the current wagering game machine **306** for play thereon (see player movement **350**). During game play at the current wagering game machine **306**, the previous wagering game machine **304** sends a notification of play-while-away activity (**330**) to the current wagering game machine **306**. The previous wagering game machine **304** can route the notifications **330** to the current location of the wagering game player based on player account login at the wagering game machines. The current wagering game machine **306** then wirelessly transmits this notification to the mobile device **318** while the wagering game player **316** is wagering at the current wagering game machine **306**.

The previous and current wagering game machines may or may not be the same type of wagering game machine. The notification can be text, images, video, etc. For example, the notification can be a video of the fish activity (showing the prizes won by the fish in the fish tank). In some example embodiments, the mobile application displays a live feed of the play-while-away activity on the wagering game player's mobile device **318** (based on a wireless communication with the current wagering game machine **306**).

In some example embodiments, wagering at the current wagering game machine **306** positively affects the play-while-away activity. In particular, after the wagering game player's mobile device **318** establishes communication with the current wagering game machine **306** and the wagering game player **316** is wagering at the current wagering game machine **306**, the previous wagering game machine **304** can be notified over the network (by either the current wagering game machine or the mobile device **318**). In response, the chance of continued play, increased prizes, etc. occurs at the play-while-away wagering game. For example for the fish tank, the wagering game player's fish has a longer life expectancy in the fish tank after notification of wagering at the current wagering game machine **306**.

In some example embodiments, if the wagering game player's mobile device **318** has established wireless communication with the current wagering game machine **306** and the player is actively wagering (e.g., credits on the machine, wagered in the last minute, etc.) and the player is still part of the play-while-away activity, the wagering game player **316** is placed into another play-while-away wagering game (e.g., a new fish in another fish tank). Alternatively or in addition, if the wagering game player's mobile device **318** has established wireless communication with the current wagering game machine and the wagering game player **316** is actively wagering and the wagering game player **316** is still part of the play-while-away activity, the wagering game player **316** receives an additional prize, receives a multiplier of the prizes won at the play-while-away wagering game, etc. Such a configuration encourages the wagering game player to continue to wager while away from the play-while-away wagering game.

Example Scavenger Hunt Mobile Application

Some example embodiments are applicable to a scavenger hunt-based activity across a number of wagering games. In such an example, a wagering game player is required to perform different types of wagering game activities at different wagering game machines to complete the scavenger hunt. The wagering game player's mobile device can include a mobile application to wirelessly communicate with these different wagering game machines. In particular, after an assigned wagering for a particular wagering game machine is complete, the mobile application on the mobile device receives a wireless communication from this wagering game machine of this completed task. Accordingly, the particular mobile application tracks the completion of the different tasks for the scavenger hunt by the wagering game player. After completion of the tasks, the wagering game player can then be given a prize (game credits, discounts to a restaurant, free points to the player accounts, etc.).

To illustrate, FIG. **4** depicts a system that includes communications for tracking scavenger hunt task completion in a wagering game environment using a mobile application, according to some example embodiments. In particular, FIG. **4** depicts a system **400** that illustrates three different wagering game machines where a wagering game player is required to perform some task thereon to complete a scavenger hunt. For example, the wagering game player is required to wager a minimum amount, win a particular jackpot, win at least a minimum amount, etc.

A wagering game machine **404**, a wagering game machine **406**, and a wagering game machine **408** are part of a wagering game establishment **402**. Although not shown, the wagering game machines **404-408** can be coupled together over a network (see FIG. **1**). In this example, a wagering game player **416** is required to perform a task at each of the wagering game machines to complete a scavenger hunt. Also, the recordation of completion of each task can be recorded on the wagering game player's mobile device (mobile device **418**) using a wireless communication between a mobile application executing on the mobile device and each of the wagering game machines. The associated mobile application can be downloaded to the mobile device based on communications with one of the wagering game machines as described above in reference to FIG. **1**.

In this example, the wagering game player **416** completes a first task for the scavenger hunt at the wagering game machine **404**. Using the wireless communication, the mobile application on the mobile device **418** can request that the wagering game machine **404** transmit an indication of completion of the task back to the mobile application after the wagering game player **416** completes the task (e.g., reaching a given level in the wagering game, wager a minimum amount, win a particular jackpot, win at least a minimum amount, etc.). After completion of the first task, the wagering game machine **404** transmits a communication **460** to the mobile device **418** that provides for recordation of completion of the first task. The mobile application on the mobile device **418** can record this completion and also track the completion of all tasks for the scavenger hunt. The wagering game player **416** then moves to the wagering game machine **406** (see player movement **450**).

The wagering game player **416** completes a second task for the scavenger hunt at the wagering game machine **406**. Using the wireless communication, the mobile application on the mobile device **418** can request that the wagering game machine **406** transmit an indication of completion of the task back to the mobile application after the wagering game player **416** completes the task (e.g., reaching a given level in the wagering game, wager a minimum amount, win a particular jackpot, win at least a minimum amount, etc.). After completion of the second task, the wagering game machine **406** transmits a communication **462** to the mobile device **418** that provides for recordation of completion of the second task. The mobile application on the mobile device **418** can record this completion. The wagering game player **416** then moves to the wagering game machine **408** (see player movement **452**).

The wagering game player **416** completes a third and final task for the scavenger hunt at the wagering game machine **408**. Using the wireless communication, the mobile application on the mobile device **418** can request that the wagering game machine **408** transmit an indication of completion of the task back to the mobile application after the wagering game player **416** completes the task (e.g., reaching a given level in the wagering game, wager a minimum amount, win a particular jackpot, win at least a minimum amount, etc.). After completion of the third task, the wagering game machine **408** transmits a communication **464** to the mobile device **418** that provides for recordation of completion of the third task. The mobile application on the mobile device **418** can record this completion. The scavenger hunt is then complete. The mobile application on the mobile device **418** can communicate with a remote server, wagering game server, etc. to provide for the prize to the wagering game player **416**. For example, a player account for the wagering game player **416** can be updated with game credits, player points, etc.

Example Mobile Device

FIG. **5** depicts a more detailed block diagram of a mobile device, according to some example embodiments. In particular, FIG. **5** illustrates the relevant components for various types of wireless communications in a mobile device, according to some example embodiments. FIG. **5** depicts a mobile device **502** that includes a Bluetooth transceiver **510**, an NFC module **512**, a cellular transceiver **514**, a central processing unit **506**, and a machine-readable medium **516** that are communicatively coupled together through a communications bus **508**. The central processing unit **506** also includes a processing module **504** executing therein. The processing module **504** can be software, firmware, hardware, or a combination thereof. The processing module **504** can process the different communications transmitted and received from and to the Bluetooth transceiver **510**, the NFC module **512**, and the cellular transceiver **514**. The machine-readable medium **516** can be representative of either or both volatile and nonvolatile machine readable media. The machine-readable medium **516** can store an owner identification for the player associated with the mobile device **502** to enable player login and authentication into a wagering game machine (as described above).

The NFC module **512** can provide NFC communications with the mobile device. For example, there can be NFC communications between the mobile device **502** and a wagering game machine, between the mobile device **502** and another mobile device, etc. The NFC module **512** can be used to provide NFC communications for various types of applications (as described herein).

The Bluetooth transceiver **510** can provide Bluetooth communications with the mobile device **502**. For example, there can be Bluetooth communications between the mobile device **502** and a wagering game machine, between the mobile device **502** and another mobile device, etc. In some applications, the communications can be used to exchange data to configure the pairing of the mobile device **502** with another device (e.g., a wagering game machine) for Bluetooth communication. The data can include the parameters for the communication, password, secret key, etc. Subsequently, the Bluetooth communication can be used to provide communication between the mobile device and the other device. The Bluetooth communication can be based on Bluetooth v1.0, Bluetooth v1.0B, Bluetooth v1.1, Bluetooth v1.2, Bluetooth v2.0+Enhanced Data Rate (EDR), Bluetooth v2.1+EDR, Bluetooth v3.0+HS, Bluetooth v4.0, Bluetooth low energy, etc.

The cellular transceiver **514** can provide cellular communication with the mobile device **502**. With reference to FIG. **1**, the cellular transceiver **514** can be used to provide communications the different backend servers over the network **112**. The cellular communication can be based on Global System for Mobile Communications (GSM), General

Packet Radio Service (GPRS), Code Division Multiple Access (CDMA), Evolution-Data Optimized (EV-DO), Enhanced Data Rates for GSM Evolution (EDGE), 3GSM, Digital Enhanced Cordless Telecommunications (DECT), Digital AMPS (IS-136/TDMA), Integrated Digital Enhanced Network (iDEN), Long Term Evolution (LTE), Worldwide Interoperability for Microwave Access (WiMax), etc.

Example Operations

This section describes operations associated with some example embodiments. In the discussion below, the flowcharts will be described with reference to the block diagrams presented above. However, in some example embodiments, the operations can be performed by logic not described in the block diagrams.

In certain embodiments, the operations can be performed by executing instructions residing on machine-readable media (e.g., software), while in other embodiments, the operations can be performed by hardware and/or other logic (e.g., firmware). In some example embodiments, the operations can be performed in series, while in other embodiments, one or more of the operations can be performed in parallel. Moreover, some example embodiments can perform less than all the operations shown in any flowchart.

The section will discuss FIGS. **6-7**. The discussion of FIG. **6** will describe example operations for downloading a mobile application to a mobile device in relation to a wagering game machine. The discussion of FIG. **7** will describe example operations for use of a mobile application in a mobile device for notification of play-while-away activity at a wagering game machine.

In particular, FIG. **6** depicts a flowchart for downloading a mobile application to a mobile device of a wagering game player based on wireless communications with a wagering game machine that the wagering game player is playing, according to some example embodiments. In this example, operations of a flowchart **600** are performed by different components of the wagering game machine and are described in reference to FIG. **1**. An example architecture of a wagering game machine is described in more detail below in reference to FIG. **8**. The operations of the flowchart **600** begin at block **602**.

At block **602**, a wagering game module presents a wagering game at a wagering game machine. With reference to FIG. **1**, a wagering game module executing in the wagering game machine **114** presents a wagering game. The operations of the flowchart **600** continue at block **604**.

At block **604**, a communications device of the wagering game machine receives a wireless transmission from a mobile device of a wagering game player playing the wagering game. The communications device can be hardware, software, firmware or a combination thereof for providing for communications external to the wagering game machine. With reference to FIG. **1**, the communications device of the wagering game machine **114** receives the NFC communication **120** from the mobile device **118**. The operations of the flowchart **600** continue at block **606**.

At block **606**, the communications device determines whether the mobile device has a mobile application associated with the wagering game machine. The communications device can query the mobile device **118** to determine whether the mobile device **118** has the mobile application associated with the wagering game machine **114**. If the mobile device does have the mobile application, operations of the flowchart **600** are complete. Otherwise, operations of the flowchart **600** continue at block **608**.

At block **608**, the communications devices determines whether wagering game criteria have been met for downloading the mobile application to the mobile device. The wagering game criteria can vary. Examples include a wagering game player logging into a player account associated with the wagering game establishment **102** and/or the wagering game manufacturer, exceeding a certain monetary amount inputted into the wagering game machine **114** (i.e., coin-in), exceeding a certain monetary amount wagered at the wagering game machine **114**, etc. If the wagering game criteria have been met, operations of the flowchart **600** continue at block **610**. Otherwise, operations remain at block **608** until the wagering game criteria are met.

At block **610**, the communications device causes the mobile application to be downloaded to the mobile device based on the wireless communication between the mobile device and the wagering game machine. The mobile application can be downloaded from or through the wagering game machine **114** using the NFC communication **120**. Alternatively or in addition, the mobile application can be downloaded independent of the wagering game machine **114** and through the wireless communication with the network **150**. The mobile application can be stored in the wagering game machine manufacturer cloud services **104**. Accordingly, the mobile application can be accessed through the wagering game machine **114** and the wagering game server **116**. Alternatively or in addition, the mobile application can be accessed from the wagering game machine manufacturer cloud services **104** using any one of the servers **106-110**. For example, the mobile device **118** can download the mobile application through an account on the social networking website using the social networking website server **106**. In some example embodiments, the mobile application can be stored and accessed from the application store website server **110**. In some example embodiments, the wagering game player **116** is given the option of the location from which to download and the route for the download. Operations of the flowchart **600** are complete.

FIG. **7** depicts a flowchart for using a mobile application on a mobile device to provide notifications of play-while-away activity at a different wagering game machine, according to some example embodiments. In this example, operations of a flowchart **700** are performed by different components of a wagering game machine and are described in reference to FIG. **3**. An example architecture of a wagering game machine is described in more detail below in reference to FIG. **8**. The operations of the flowchart **700** begin at block **702**.

At block **702**, a communications device of a first wagering game machine or a second wagering game machine causes the mobile application to be downloaded to the mobile device based on the wireless communication between the mobile device and the first wagering game machine or the second wagering game machine. With reference to FIG. **3**, a mobile application related to the play-while-away activity can be downloaded while the wagering game player **318** is still at the previous wagering game machine **304** or at the current wagering game machine **306**. The downloading of the mobile application can be based on the communications described above in reference to FIGS. **1-2**. Operations of the flowchart **700** continue at block **704**.

At block **704**, a wagering game module at the second wagering game machine presents a wagering game at the second wagering game machine to the wagering game player, wherein wagering game play continues at the first

wagering game machine for the wagering game player while the wagering game player is not present at the first wagering game machine. With reference to FIG. **3**, a wagering game module executing in the current wagering game machine **306** presents a wagering game, wherein wagering game play continues at the previous wagering game machine **304** for the wagering game player **316** while the wagering game player **316** is not present at the previous wagering game machine **304**. Operations of the flowchart **700** continue at block **706**.

At block **706**, the communications device of the second wagering game machine receives, from the first wagering game machine, a notification of the wagering game play that continues at the first wagering game machine for the wagering game player. With reference to FIG. **3**, during game play at the current wagering game machine **306**, the previous wagering game machine **304** sends a notification of play-while-away activity (**330**) to the current wagering game machine **306**. The previous wagering game machine **304** can route the notifications **330** to the current location of the wagering game player based on player account login at the wagering game machines. Operations of the flowchart **700** continue at block **708**.

At block **708**, the communications device transmits, from the second wagering game machine, the notification of the wagering game play at the first wagering game machine for presentation on the mobile device using the mobile application. For example, this notification of the wagering game play at the first wagering game machine can be transmitted during a time when the wagering game player continues playing the wagering game at the second wagering game machine. With reference to FIG. **3**, the current wagering game machine **306** wirelessly transmits this notification to the mobile device **318** while the wagering game player **316** is wagering at the current wagering game machine **306**. Operations of the flowchart **700** are complete.

Operating Environment

This section describes an example operating environment and presents structural aspects of some embodiments. This section includes discussion about wagering game machine architectures and wagering game networks.

Wagering Game Machine Architecture

FIG. **8** depicts a block diagram illustrating a wagering game machine architecture, according to some example embodiments. In particular, FIG. **8** depicts an architecture of the wagering game machine **102** of FIG. **1**. The gaming terminal **810** includes a central processing unit (CPU) **830** connected to a main memory **832**. The CPU **830** may include any suitable processor(s), such as those made by Intel and AMD. By way of example, the CPU **830** includes a plurality of microprocessors including a master processor, a slave processor, and a secondary or parallel processor. CPU **830**, as used herein, comprises any combination of hardware, software, or firmware disposed in or outside of the gaming terminal **810** that is configured to communicate with or control the transfer of data between the gaming terminal **810** and a bus, another computer, processor, device, service, or network. The CPU **830** comprises one or more controllers or processors and such one or more controllers or processors need not be disposed proximal to one another and may be located in different devices or in different locations. The CPU **830** is operable to execute all of the various gaming methods and other processes disclosed herein. The main memory **828** includes a wagering game executable **832**. In some example embodiments, the wagering game executable **832** may present wagering games, such as video poker, video blackjack, video slots, video lottery, etc., in whole or part. The wagering game module **832** can also process the wireless communications received and transmitted (as described above).

The CPU **830** is also connected to an input/output (I/O) bus **836**, which can include any suitable bus technologies, such as an AGTL+ frontside bus and a PCI backside bus. The I/O bus **836** is connected to various input devices **838**, output devices **840**, and input/output devices **842**. The I/O bus **836** is also connected to storage unit **844** and external system interface **846**, which is connected to external system(s) **848** (e.g., wagering game networks).

The external system **848** includes, in various aspects, a gaming network, other gaming terminals, a gaming server, a remote controller, communications hardware, or a variety of other interfaced systems or components, in any combination. In yet other aspects, the external system **848** may comprise a player's portable electronic device (e.g., cellular phone, electronic wallet, etc.) and the external system interface **846** is configured to facilitate wireless communication and data transfer between the portable electronic device and the CPU **830**, such as by a near-field communication path operating via magnetic-field induction or a frequency-hopping spread spectrum RF signals (e.g., Bluetooth, etc.).

The gaming terminal **810** optionally communicates with the external system **48** such that the terminal operates as a thin, thick, or intermediate client. In general, a wagering game includes an RNG for generating a random number, game logic for determining the outcome based on the randomly generated number, and game assets (e.g., art, sound, etc.) for presenting the determined outcome to a player in an audio-visual manner. The RNG, game logic, and game assets are contained within the gaming terminal **10** ("thick client" gaming terminal), the external system **848** ("thin client" gaming terminal), or are distributed therebetween in any suitable manner ("intermediate client" gaming terminal).

Any component of the gaming terminal architecture may include hardware, firmware, or tangible machine-readable storage media including instructions for performing the operations described herein. Machine-readable storage media includes any mechanism that stores information and provides the information in a form readable by a machine (e.g., gaming terminal, computer, etc.). For example, machine-readable storage media includes read only memory (ROM), random access memory (RAM), magnetic disk storage media, optical storage media, flash memory, etc.

Wagering Game Networks

FIG. **9** is a block diagram illustrating a wagering game network **900**, according to some example embodiments. As shown in FIG. **9**, the wagering game network **900** includes a plurality of casinos **912** connected to a communications network **914**.

Each casino **912** includes a local area network **916**, which includes an access point **904**, a wagering game server **906**, and wagering game machines **902**. The access point **9304** provides wireless communication links **910** and wired communication links **908**. The wired and wireless communication links can employ any suitable connection technology, such as Bluetooth, 802.11, Ethernet, public switched telephone networks, SONET, etc. In some embodiments, the wagering game server **906** can serve wagering games and

distribute content to devices located in other casinos **912** or at other locations on the communications network **914**. In some example embodiments, the wagering game server **906** is representative of one of more of the backend servers illustrated in FIG. **1**.

The wagering game machines **902** described herein can take any suitable form, such as floor standing models, handheld mobile units, bartop models, workstation-type console models, etc. Further, the wagering game machines **902** can be primarily dedicated for use in conducting wagering games, or can include non-dedicated devices, such as mobile phones, personal digital assistants, personal computers, etc. In one embodiment, the wagering game network **900** can include other network devices, such as accounting servers, wide area progressive servers, player tracking servers, and/or other devices suitable for use in connection with embodiments of the invention.

In some embodiments, wagering game machines **902** and wagering game servers **906** work together such that a wagering game machine **902** can be operated as a thin, thick, or intermediate client. For example, one or more elements of game play may be controlled by the wagering game machine **902** (client) or the wagering game server **906** (server). Game play elements can include executable game code, lookup tables, configuration files, game outcome, audio or visual representations of the game, game assets or the like. In a thin-client example, the wagering game server **906** can perform functions such as determining game outcome or managing assets, while the wagering game machine **902** can present a graphical representation of such outcome or asset modification to the user (e.g., player). In a thick-client example, the wagering game machines **902** can determine game outcomes and communicate the outcomes to the wagering game server **906** for recording or managing a player's account.

In some embodiments, either the wagering game machines **902** (client) or the wagering game server **906** can provide functionality that is not directly related to game play. For example, account transactions and account rules may be managed centrally (e.g., by the wagering game server **906**) or locally (e.g., by the wagering game machine **902**). Other functionality not directly related to game play may include power management, presentation of advertising, software or firmware updates, system quality or security checks, etc.

Any of the wagering game network components (e.g., the wagering game machines **902**) can include hardware and machine-readable media including instructions for performing the operations described herein.

Example Wagering Game Machine

FIG. **10** depicts a perspective view of a wagering game machine, according to some example embodiments. Referring to FIG. **10**, there is shown a gaming terminal **10** similar to those used in gaming establishments, such as casinos. With regard to the present invention, the gaming terminal **10** may be any type of gaming terminal and may have varying structures and methods of operation. For example, in some aspects, the gaming terminal **10** is an electromechanical gaming terminal configured to play mechanical slots, whereas in other aspects, the gaming terminal is an electronic gaming terminal configured to play a video casino game, such as slots, keno, poker, blackjack, roulette, craps, etc. The gaming terminal **10** may take any suitable form, such as floor-standing models as shown, handheld mobile units, bartop models, workstation-type console models, etc. Further, the gaming terminal **10** may be primarily dedicated for use in conducting wagering games, or may include non-dedicated devices, such as mobile phones, personal digital assistants, personal computers, etc. Exemplary types of gaming terminals are disclosed in U.S. Pat. No. 6,517,433 and Patent Application Publication Nos. US2010/0062196 and US2010/0234099, which are incorporated herein by reference in their entireties.

The gaming terminal **10** illustrated in FIG. **10** comprises a cabinet **11** that may house various input devices, output devices, and input/output devices. By way of example, the gaming terminal **10** includes a primary display area **12**, a secondary display area **14**, and one or more audio speakers **16**. The primary display area **12** or the secondary display area **14** may be a mechanical-reel display, a video display, or a combination thereof in which a transmissive video display is disposed in front of the mechanical-reel display to portray a video image superimposed upon the mechanical-reel display. The display areas may variously display information associated with wagering games, non-wagering games, community games, progressives, advertisements, services, premium entertainment, text messaging, emails, alerts, announcements, broadcast information, subscription information, etc. appropriate to the particular mode(s) of operation of the gaming terminal **10**. The gaming terminal **10** includes a touch screen(s) **18** mounted over the primary or secondary areas, buttons **20** on a button panel, bill validator **22**, information reader/writer(s) **24**, and player-accessible port(s) **26** (e.g., audio output jack for headphones, video headset jack, USB port, wireless transmitter/receiver, etc.). It should be understood that numerous other peripheral devices and other elements exist and are readily utilizable in any number of combinations to create various forms of a gaming terminal in accord with the present concepts.

Input devices, such as the touch screen **18**, buttons **20**, a mouse, a joystick, a gesture-sensing device, a voice-recognition device, and a virtual input device, accept player input(s) and transform the player input(s) to electronic data signals indicative of the player input(s), which correspond to an enabled feature for such input(s) at a time of activation (e.g., pressing a "Max Bet" button or soft key to indicate a player's desire to place a maximum wager to play the wagering game). The input(s), once transformed into electronic data signals, are output to a CPU for processing. The electronic data signals are selected from a group consisting essentially of an electrical current, an electrical voltage, an electrical charge, an optical signal, an optical element, a magnetic signal, and a magnetic element.

FIG. **11** depicts an image of a base-game screen for a wagering game machine, according to some example embodiments. Referring to FIG. **11**, there is illustrated an image of a basic-game screen **50** adapted to be displayed on the primary display area **12** or the secondary display area **14**. The basic-game screen **50** portrays a plurality of simulated symbol-bearing reels **52**. Alternatively or additionally, the basic-game screen **50** portrays a plurality of mechanical reels or other video or mechanical presentation consistent with the game format and theme. The basic-game screen **50** also advantageously displays one or more game-session credit meters **54** and various touch screen buttons **56** adapted to be actuated by a player. A player can operate or interact with the wagering game using these touch screen buttons or other input devices such as the buttons **20** shown in FIG. **15**. The CPU operate(s) to execute a wagering game program causing the primary display area **12** or the secondary display area **14** to display the wagering game.

In response to receiving a wager, the reels **52** are rotated and stopped to place symbols on the reels in visual association with paylines such as paylines **58**. The wagering game evaluates the displayed array of symbols on the stopped reels and provides immediate awards and bonus features in accordance with a pay table. The pay table may, for example, include "line pays" or "scatter pays." Line pays occur when a predetermined type and number of symbols appear along an activated payline, typically in a particular order such as left to right, right to left, top to bottom, bottom to top, etc. Scatter pays occur when a predetermined type and number of symbols appear anywhere in the displayed array without regard to position or paylines. Similarly, the wagering game may trigger bonus features based on one or more bonus triggering symbols appearing along an activated payline (i.e., "line trigger") or anywhere in the displayed array (i.e., "scatter trigger"). The wagering game may also provide mystery awards and features independent of the symbols appearing in the displayed array.

In accord with various methods of conducting a wagering game on a gaming system in accord with the present concepts, the wagering game includes a game sequence in which a player makes a wager and a wagering game outcome is provided or displayed in response to the wager being received or detected. The wagering game outcome is then revealed to the player in due course following initiation of the wagering game. The method comprises the acts of conducting the wagering game using a gaming apparatus, following receipt of an input from the player to initiate the wagering game. The gaming terminal **10** then communicates the wagering game outcome to the player via one or more output devices (e.g., primary display **12** or secondary display **14**) through the display of information such as, but not limited to, text, graphics, static images, moving images, etc., or any combination thereof. In accord with the method of conducting the wagering game, the CPU transforms a physical player input, such as a player's pressing of a "Spin Reels" touch key, into an electronic data signal indicative of an instruction relating to the wagering game (e.g., an electronic data signal bearing data on a wager amount).

In the aforementioned method, for each data signal, the CPU is configured to process the electronic data signal, to interpret the data signal (e.g., data signals corresponding to a wager input), and to cause further actions associated with the interpretation of the signal in accord with computer instructions relating to such further actions executed by the controller. As one example, the CPU causes the recording of a digital representation of the wager in one or more storage media, the CPU, in accord with associated computer instructions, causing the changing of a state of the storage media from a first state to a second state. This change in state is, for example, effected by changing a magnetization pattern on a magnetically coated surface of a magnetic storage media or changing a magnetic state of a ferromagnetic surface of a magneto-optical disc storage media, a change in state of transistors or capacitors in a volatile or a non-volatile semiconductor memory (e.g., DRAM), etc. The noted second state of the data storage media comprises storage in the storage media of data representing the electronic data signal from the CPU (e.g., the wager in the present example). As another example, the CPU further, in accord with the execution of the instructions relating to the wagering game, causes the primary display, other display device, or other output device (e.g., speakers, lights, communication device, etc.) to change from a first state to at least a second state, wherein the second state of the primary display comprises a visual representation of the physical player input (e.g., an acknowledgement to a player), information relating to the physical player input (e.g., an indication of the wager amount), a game sequence, an outcome of the game sequence, or any combination thereof, wherein the game sequence in accord with the present concepts comprises acts described herein. The aforementioned executing of computer instructions relating to the wagering game is further conducted in accord with a random outcome (e.g., determined by a RNG) that is used by the CPU to determine the outcome of the game sequence, using a game logic for determining the outcome based on the randomly generated number. In at least some aspects, the CPU is configured to determine an outcome of the game sequence at least partially in response to the random parameter.

General

This detailed description refers to specific examples in the drawings and illustrations. These examples are described in sufficient detail to enable those skilled in the art to practice the inventive subject matter. These examples also serve to illustrate how the inventive subject matter can be applied to various purposes or embodiments. Other embodiments are included within the inventive subject matter, as logical, mechanical, electrical, and other changes can be made to the example embodiments described herein. Features of various embodiments described herein, however essential to the example embodiments in which they are incorporated, do not limit the inventive subject matter as a whole, and any reference to the invention, its elements, operation, and application are not limiting as a whole, but serve only to define these example embodiments. This detailed description does not, therefore, limit embodiments of the invention, which are defined only by the appended claims. Each of the embodiments described herein are contemplated as falling within the inventive subject matter, which is set forth in the following claims.

The invention claimed is:

1. A method comprising:

establishing, by a mobile device, a wireless communication between the mobile device and a wagering game machine after the mobile device is within a wireless communication range of the wagering game machine, the wagering game machine configured to detect, via at least one of one or more electronic input devices, a physical item associated with a monetary value that establishes a credit balance on the wagering game machine; and

receiving, by the mobile device, an authorization to access content on the mobile device, wherein the content is accessible on the mobile device while a wagering game is currently being played at the wagering game machine, the authorization in response to a wagering game criteria being satisfied after initiation of the wagering game and prior to receipt on the wagering game machine, via at least one of the one or more electronic input devices, of a cashout input that initiates a payout from the credit balance, wherein the authorization is based, at least in part, on a context of the wagering game.

2. The method of claim **1**, wherein the content comprises a mobile application, the method further comprising:

in response to receiving the authorization, downloading the mobile application to the mobile device for execution on the mobile device.

3. The method of claim **1**, wherein the content comprises a mobile application, the mobile application configured to

provide a notification of at least one of: an availability of a wagering game on a different wagering game machine, awarding of a shared bonus, or a play-while-away activity.

4. The method of claim **1**, wherein the content comprises a mobile application, the mobile application configured to provide a tutorial for the wagering game or a history of game play on the wagering game machine.

5. The method of claim **1**, wherein the content includes a mobile application that is a mobile version of the wagering game that is executable on the wagering game machine.

6. The method of claim **5**, wherein additional content is provided by the wagering game machine for use by the mobile application in accordance with a progression of play on the wagering game machine.

7. The method of claim **5**, wherein a first award amount for meeting a criteria on the mobile version of the wagering game is more than a second award amount for meeting the same criteria on the wagering game that is executable on the wagering game machine.

8. The method of claim **1**, wherein the content comprises entries for wagering game activity at the wagering game machine, wherein the entries comprise one or more of an amount won or lost as a result of the wagering game activity, a date of the wagering game activity, and a serial number of the wagering game machine.

9. The method of claim **1**, further comprising:

in response to reaching a level of play of the wagering game on the wagering game machine, presenting an option on the mobile device to enter a tournament game.

10. A mobile device comprising:

one or more processors;

a wireless communications interface; and

a non-transitory machine-readable storage medium having stored thereon instructions which, when executed by the one or more processors, cause the mobile device to:

establish, via the wireless communications interface, a wireless communication between the mobile device and a wagering game machine after the mobile device is within a wireless communication range of the wagering game machine, the wagering game machine configured to detect, via at least one of one or more electronic input devices, a physical item associated with a monetary value that establishes a credit balance on the wagering game machine; and

receive an authorization to access content on the mobile device, wherein the content is accessible on the mobile device while a wagering game is currently being played at the wagering game machine, the authorization in response to a wagering game criteria being satisfied after initiation of the wagering game and prior to receipt on the wagering game machine, via at least one of the one or more electronic input devices, of a cashout input that initiates a payout from the credit balance, wherein the authorization is based, at least in part, on a context of the wagering game.

11. The mobile device of claim **10**, wherein the content comprises a mobile application, the mobile application configured to provide a notification of at least one of: an availability of a wagering game on a different wagering game machine, awarding of a shared bonus, or a play-while-away activity.

12. The mobile device of claim **10**, wherein the content includes a mobile application that is a mobile version of the wagering game that is executable on the wagering game machine.

13. The mobile device of claim **12**, wherein additional content is provided for use by the mobile application in accordance with a progression of play on the wagering game machine.

14. The mobile device of claim **10**, wherein the instructions further include instructions, that when executed, cause the mobile device to:

present an option to enter a tournament game in response to reaching a level of play on the wagering game machine.

15. A non-transitory machine-readable medium including instructions which, when executed by one or more processors, cause a mobile device to:

establish a first wireless communication between the mobile device and a first wagering game machine after the mobile device is within a wireless communication range of the first wagering game machine, the first wagering game machine configured to detect, via at least one of one or more electronic input devices, a physical item associated with a monetary value that establishes a credit balance on the first wagering game machine; and

receive an authorization to access content on the mobile device, wherein the content is accessible on the mobile device while a wagering game is currently being played at the first wagering game machine, the authorization in response to a wagering game criteria being satisfied after initiation of the wagering game and prior to receipt on the first wagering game machine, via at least one of the one or more electronic input devices, of a cashout input that initiates a payout from the credit balance, wherein the authorization is based, at least in part, on a context of the wagering game.

16. The non-transitory machine-readable medium of claim **15**, wherein the content comprises a mobile application, the mobile application configured to:

receive, via the first wireless communication, a first indication that a first task has been completed at the first wagering game machine;

establish a second wireless communication between the mobile device and a second wagering game machine after the mobile device is within a wireless communication range of the second wagering game machine;

receive, via the second wireless communication, a second indication that a second task has been completed at the second wagering game machine; and

in response to determining that the first task and the second task have been completed, provide an award.

17. The non-transitory machine-readable medium of claim **15**, wherein the content comprises a mobile application, the mobile application configured to provide a limited version of the wagering game that is executable on the first wagering game machine prior to reaching an achievement level on the wagering game, and provide additional content in response to reaching the achievement level in the wagering game.

18. The non-transitory machine-readable medium of claim **15**, wherein the content comprises a mobile application, the mobile application configured to provide a communication session with a second mobile device in wireless communication with a second wagering game machine.

19. The non-transitory machine-readable medium of claim **18**, wherein the second wagering game machine is executing a same wagering game as the first wagering game machine.

20. The non-transitory machine-readable medium of claim **15**, wherein the content comprises a mobile application, the mobile application configured to record entries for wagering game activity at the first wagering game machine, wherein the entries comprise one or more of an amount won or lost as a result of the wagering game activity, a date of the wagering game activity, and a serial number of the first wagering game machine.

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